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annual report 1892



Columbia College  
in the City of New York



THIRD  
ANNUAL REPORT  
OF  
PRESIDENT LOW  
TO THE  
TRUSTEES

Serial  
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OCTOBER 3, 1892

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*To the Trustees of Columbia College in the City of  
New York :*

I have the honor to submit herewith the president's report for the academic year ending June 30, 1892.

The year will be memorable in the annals of the College by reason of the purchase of a new site for the university upon the crown of Manhattan Island, where we are justified in hoping that Columbia will be able to carry on her work with increasing usefulness for many generations. All the steps leading to this purchase naturally are well known to the trustees, but it is fitting nevertheless that they should be made a part of the record. Towards the end of the academic year of 1890-91, it was clear that the immediate needs of the College would necessitate an enlargement of our facilities. Before entering upon new expenditures upon our present block, it was determined to appoint a special committee to report as to all questions involved in the selection of a new site, should such a step seem to them desirable and practicable. This committee was appointed at the meeting of May 4, 1891, and consisted of the President, Mr. W. C. Schermerhorn, Rev. Dr. Morgan Dix, and Messrs. Geo. L. Rives and Cornelius Vanderbilt. The Committee on Site held its first meeting in the month of November following. In the meantime, the clerk of the trustees, Mr. John B. Pine, had prepared a minute of all action taken by the trustees with reference to the block at Forty-

ninth Street since the determination to make it the site of the College was reached in 1855. From this abstract it appeared that from the beginning the location of the College at Forty-ninth Street was regarded as temporary. The difficulty of finding a practicable and desirable alternative had indeed led to large expenditures upon this block, but they had been unaccompanied by any expressed change of purpose. In the meanwhile it had become increasingly clear that the restricted area at our command and the nearness to the railroad and the Grand Central Depot were disadvantages so serious as to make the block at Forty-ninth Street and Madison Avenue unsuitable for our permanent site. As to this point the Committee on Site found themselves of one mind from the beginning. At the same meeting in November, 1891, Mr. Pine called the attention of the committee to the piece of land occupied by the New York Hospital for the Bloomingdale Asylum on the heights above Morningside Park, and intimated his belief that the College might be able to secure an option on a large part of it, for the asking. After considering other available sites upon Manhattan Island that had been called to the attention of the committee, a sub-committee was appointed to secure, if possible, an option, to be submitted to the trustees of the College, on that part of the land belonging to the New York Hospital lying between 116th and 120th Streets, and between the Tenth Avenue, there called Amsterdam Avenue, and the Boulevard. Such an option was secured, to run for six months from December 1, 1891, covering the right to purchase the piece specified, with the buildings thereon, at the sum of \$2,000,000. At their meet-



ing in December the trustees of the College authorized the Committee on Site to accept the option. The alumni, and the public through the alumni, were immediately notified of what had been done, and an expression of opinion was asked for as to the desirability of the proposed move. In the meantime a careful examination was made of the buildings upon the proposed site by Professors Trowbridge and Ware and by Mr. Darling, the Superintendent of Buildings and Grounds. The buildings were found to be in excellent condition, and capable of being adapted to the temporary uses of the College at comparatively small expense. It soon appeared that in the judgment of the public and of the alumni the proposed site afforded a happy solution of the problem submitted to the committee, so far as the site itself was concerned. It remained to be determined whether it was practicable for the College to incur the heavy liabilities involved in the purchase and the removal. It was felt by all that it would not be tolerable in order to provide for the distant future, to deprive the next ten or twenty years of the educational privileges and growth that Columbia might justly be expected to afford. It became essential, therefore, that the trustees should see their way, with reasonable assurance, to the transfer of the College to the new site without impairing the resources on which they must rely for the conduct of current educational work. Clearly this was not possible unless the scheme so far commended itself to public-spirited men as to bring them to the support of the College in this emergency. Steps were taken to ascertain the prospect of securing pecuniary help. In a short time the sum of \$370,000 was pledged for this purpose.

At this point the trustees, in the middle of April, 1892, by a unanimous vote, decided to make the venture. This brought into the field a committee of the Alumni Association appointed to co-operate with the president in the event of the purchase, and this committee soon raised \$50,000 more. It was estimated that the sum of \$2,700,000 must be expended to place the College in a position to be able to carry on its current educational work upon the new site. Against this, the assets of the College available for the purpose, without impairing the revenues already pledged to educational work actually going forward, were estimated to be at the time of the purchase about \$2,200,000. This sum included the anticipated proceeds of the present site of the College and also the various sums pledged as gifts in the event of purchase. It is clear, therefore, that the determination by the trustees to secure the proposed site involved for the College the acceptance of a certain risk. Not less than half a million of dollars must be secured in order to put us, even in temporary quarters for the most part, upon the new ground in a position to carry on well the work we are now doing. It is clear that immense sums must be forthcoming for the erection of permanent buildings and the constant enlargement of our work. It seemed wise, nevertheless, to accept the risk involved, whatever it may be, in view of the substantially unanimous approval accorded to the project by the faculties, by the alumni of the College, and by the public generally. The College does not come into possession of the new site until January 1, 1895, and it seemed reasonable to believe that if \$400,000 could be raised in four months, at least whatever

sum may prove to be essential to secure the removal of the College to the new site free from debt, will be available in season for the final payment. While the subject was under discussion, a bill was introduced into the legislature proposing, among other things, to open a street through the new site. This bill emanated from the city authorities, and was introduced by them in execution of a policy determined upon several years earlier, and before Columbia had any thought of going to this locality. It will always be a source of gratification and pride to Columbia men to recall the unanimity with which all interests in the city sprang to the support of the College in the effort to turn this danger into an advantage. The mayor readily yielded when the matter had been explained to him, and lent his powerful influence to an amendment of the bill before the legislature, so that it should secure the proposed site of the College against street openings so long as the site shall be owned or occupied by the College for educational purposes. The bill as amended became a law. The act provides that streets shall not be opened through the proposed site, provided the trustees of the College cede for street purposes a strip forty feet in width at the northern end of the plot in order to make 120th Street 100 feet wide, and cede, without award for damages, at the southern end of the plot, the one half of 116th Street. As the trustees do not come into possession of the new site before January, 1895, they have executed an instrument, together with the mayor, whereby the trustees agree to make these cessions in due form as soon as they have title, and the city agrees to accept them as a full equiva-

lent for the exemption of the new site from street openings.

The site being thus secured for the College, and protected against subdivision by street openings, the trustees addressed themselves to the problem of using to the best advantage the interval of time between purchase and possession. The Committee on Buildings and Grounds have called upon the various faculties to submit carefully prepared statements of their needs, and a commission has been appointed, consisting of Messrs. R. M. Hunt, Charles C. Haight, and McKim, Meade, & White, to study out the preliminary architectural problem. Professors Trowbridge and Ware also have been invited to act as an advisory committee to the Committee on Buildings and Grounds. The new site presents, after the cessions for street purposes, an unbroken rectangle, 775 feet by  $947\frac{1}{3}$  feet, on the crown of the island, midway between the Riverside and the Morningside Parks. The highest point is 150 feet above the Hudson River, while the immediate vicinity of the Grant Monument and of the proposed Cathedral of St. John the Divine, gives assurance of a neighborhood destined to be notable. The first building put upon the new site will condition, by its location and by its architecture, everything that is to follow, and the trustees feel, accordingly, that no pains are to be spared in order to secure thoroughly digested and acceptable plans. In dismissing this subject for the time being, it only remains to be said that the trustees have accepted a grave responsibility in confident reliance upon those who value the higher education and who are proud of the majestic city with which Columbia has been identified during all her history.

No university in the world has a nobler site, no city has a greater opportunity. I have the utmost confidence that, for the support it needs, Columbia will not ask in vain.

The year has also seen the revision of the statutes governing the College, an event which brings to an end, as I trust, the internal reorganization that has proceeded so steadily during the last two years and a half. We have attained an organization that enables us to deal equally well with students wishing to avail of our educational tender at will and with those who seek simply the opportunities afforded by a single school. From the point of view of the students, it is convenient to say that Columbia now consists of seven schools. From the administrative point of view it is almost more convenient to say that Columbia consists of the college, that is the School of Arts, and of six university faculties, Law, Medicine, Mines, Political Science, Philosophy, and Pure Science; for while it is true that each of these faculties conducts a school, it is also true that they work together in giving instruction to an increasing body of students who seek instruction from more than one faculty. In other words, the Columbia that two years and a half ago consisted of four schools almost wholly unrelated to each other, consists now of seven schools that are tied together by all the interests of a common life. The University Council, established two years ago as an advisory body only, by the revised statutes has been made a body with ample powers, experience having shown that it was admirably adapted to serve as the principal organ of the faculties in directing the common life of the university. The council also serves as a

unifying factor, consisting as it does of two members from every faculty, who constantly meet together to deal with questions of common concern. The new statutes also provide for the establishment of a School of Pure Science on lines precisely parallel to those followed in the case of the Schools of Political Science and Philosophy. The object of this school is to increase the opportunities for advanced work in mathematics and natural science on the part of students who do not care to take any of the technical courses in the School of Mines. It represents the definite recognition of a new aim on the part of the university, and the purpose to seek its accomplishment along the pathway that has led to success in other directions.

When the privilege was first thrown open to seniors in the School of Arts of studying under any of the university faculties, the College of Physicians and Surgeons was in only nominal relations to Columbia. Now that the College of Physicians and Surgeons has become a part of Columbia the seniors enjoy this privilege under the medical faculty also.

This system carries with it in effect the right to take the first year of the professional schools as a part of the equipment for the A. B. degree. As the A. B. degree is generally looked upon as the symbol of a liberal education, this phase has sometimes been called in question. It is essentially the practice at Oxford, where from a point corresponding even more nearly with the end of our sophomore year than with the end of the junior year, the student is allowed to complete his bachelor's degree in one of the side schools. But it is not necessary to rest the argument for this practice upon precedent. It is believed at Columbia that no subject is open to the senior under

this system that may not fairly enter, if scientifically taught, into a liberal education. If these subjects are not taught as sciences they have no place in a university at all. In all professional schools the broad foundation principles have to be first taught, and it is in the later years that the technical instruction is chiefly given. At Columbia the academic year is of the same length in the professional schools as in the School of Arts, the demands made by them upon the time and energy of the student are certainly not less, and the standard of scholarship is at least equally high. Again it seems to be clear, that for a man not proposing to practise law, for instance, no better culmination to a liberal education could be had than a year in the Law School. If this be so, it is difficult to see why, in the case of a man who does propose to complete his law course and to practise law, the same work may not properly be accepted for the bachelor of arts degree. By this system it still takes four years to acquire the A. B. degree, but for those men who take both the A. B. degree and the professional degree the total time is shortened by one year. This in many cases is an important item in the interest of thorough education. In recent years all professional courses have been lengthened in the interest of higher specialization and better professional training. The strain of the added year or years in the professional course is especially heavy upon those who seek first a college education. The tendency of lengthening the professional course, therefore, is to lead men to omit the college course altogether. It is believed that the system introduced at Columbia will do much to offset this unfortunate tendency. It is to be noticed that the system is compulsory on nobody.

Columbia does not now offer men less but greater inducements to continue their non-professional studies, if they can, for the full period of four years. More than this, while they are pursuing their professional work, all the resources of the university are at their command to enable them to continue other studies which interest them or to make good deficiencies. It is too soon to speak with certainty, but it is believed that the result of this system will be to keep many men at Columbia for six years, who otherwise would stay but four years in the School of Arts, or an even shorter time in one of the professional schools only. In the meantime, it is easy to see what a unifying factor in the university the system is. All the university faculties have a common interest in the senior year, and are thus once more bound together and to the School of Arts.

In almost all of the schools the curriculum has been under review during the year.

In the School of Arts the curriculum is now as follows :

#### FRESHMAN CLASS.

Greek . . . 3 hours a week.  
 Latin . . . 3 hours " "  
 French or German . . 3 hours " "  
 Mathematics. 3 hours " "  
 Rhetoric . . 3 hours " "

A student proficient in French and German of the first two years may elect another modern language.

#### SOPHOMORE CLASS.

Greek . . . 3 hours a week.  
 Latin . . . 3 hours " "  
 French or German . . 3 hours " "  
 Mathematics. 2 hours " "  
 Rhetoric . . 1 hour " "  
 Literature . . 2 hours " "  
 History . . 2 hours " "

A student proficient in French and German of the first two years may elect another modern language.

Chemistry may be substituted for 3 hours of any prescribed language except English.



## JUNIOR CLASS.

The required studies of the junior class are history, political economy, logic, and psychology, and they occupy four hours per week throughout the year. Other subjects of study are elective. The courses selected by a student must suffice, with the obligatory studies, to occupy at least fifteen hours a week. No student is allowed to elect more than six hours a week in any department, without the consent of the dean.

Each member of the junior class is required to prepare two essays in each term, in addition to his elective work.

First Term : History, 2 hours a week. Logic, 2 hours.

Second Term : Political economy, 2 hours a week. Psychology, 2 hours.

## SENIOR CLASS.

All the studies of the senior class are elective. The courses selected by a student must occupy at least fifteen hours a week. The student pursues his studies under any of the university faculties.

By resolution of the Faculty of Arts the privilege that has existed hitherto in certain special cases of taking the degree of A. B. in absentia has been withdrawn.

In the School of Law few changes have been made, except that the studies of the second year have been made entirely elective instead of being only partially so.

In the School of Medicine, the College of Physicians and Surgeons, much time has been spent in perfecting a four-years' course in medicine to take

the place of the present three-years' course. This work is not yet completed, but the medical faculty are unanimously and earnestly of the opinion that this step should be taken at the earliest practicable moment. I sympathize with the feeling that it was not wise for Columbia to commit herself to the new uncertainties involved in this step before she had completed a single year's experience in the conduct of the College of Physicians and Surgeons. But I am warmly in sympathy with the wish of the faculty, and I hope that before another year has elapsed the trustees will see their way to give the required notice.

In the School of Mines a four-years' course in electrical engineering parallel to the other regular courses has been established, in lieu of a partial course previously existing. All of the other courses have been carefully gone over with a view to making such modifications as experience had shown to be desirable.

The Schools of Political Science and Philosophy have no curriculum in the ordinary sense of the word. They offer certain courses, and each student makes his own selections. In the School of Political Science two new courses in American history were offered, while Professor Moore's courses gave new importance to the study of diplomacy and international law. In the School of Philosophy sixty-nine courses were offered and availed of, an increase of eight courses over the year previous.

The tendency to demand a higher standard of scholarship in all parts of the university is very strong. Out of 337 applications for degrees of various sorts, only 269 degrees were awarded. This is stated, because it shows that, side by side with the desire to

offer to the student every possible privilege for study, there has been also the steadfast purpose to raise the educational standards of the university.

An unusual number of lectures open to the public were delivered during the year. An appendix to this report will give the list in full. It is only necessary here to dwell on the points of policy involved. Until this year a free course of Saturday-morning lectures had been maintained at the College for several years. These lectures had been entirely unconnected with each other, and were hardly more than popular lectures. At the beginning of this year it was determined to deliver, in lieu of these, free courses of lectures at the Cooper Union, where a larger audience would be reached, and where the lectures would add also to the usefulness of the Cooper Union, an institution whose educational value to the community it is hard to overstate. The authorities of the Cooper Union gladly co-operated by giving the hall and all the incidental expenses attached thereto. Two courses of lectures were so delivered: one on architecture, by Russell Sturgis, Esq., and one on biology, by Professor Osborn. They proved very successful. Although the lectures were kept on a level worthy of the university, and were intended to instruct rather than to amuse, they commanded audiences averaging about 1,000 in number. Both courses grew constantly from the beginning to the end.

In the execution of a similar policy of co-operation arrangements have been made for the delivery, during the coming year, of a course of public lectures on science at the Museum of Natural History, and on art at the Metropolitan Museum of Art. In these

cases these institutions, as they are able to do so, gladly give in return certain privileges to the professors and students of Columbia. All such courses are known as Columbia College lectures in co-operation with the Cooper Union, the American Museum of Natural History, or the Metropolitan Museum of Art, as the case may be.

The agreement with the American Museum of Natural History is made for one year, and, besides providing for the public lectures alluded to, involves the following points :

1. The Museum places its collections, subject to the control of its own curators, at the service of our professors and advanced students for purposes of study and research, and agrees to give to them the necessary facilities for work.
2. Similar privileges of investigation at Columbia are extended to the curators of the Museum.

The agreement with the Metropolitan Museum of Art embraces the following points :

1. Lectures may be delivered before the objects of the Museum.
2. Students of Columbia College will be admitted to the Museum on presentation of a card signed by the President of the College.
3. Permission to draw, sketch, or copy objects in the Museum will be granted and cards furnished any student by the curator of the department in which the work is done.
4. Photographing inside the Museum is to be done by the photographer of the Museum only. Negatives for the College will be taken at cost and delivered to the College.
5. Objects may be removed temporarily from exhibition for the purpose of special study, and the curators will receive

authority to allow students to study these objects in rooms specified for the purpose.

6. The Museum engages to furnish a room within the building to hold at least 500 persons, if the College will agree to give a course of public lectures, once or twice a month, on art subjects during the winter and spring of each year.

I think the city is to be congratulated, no less than the institutions concerned, on the consummation of these arrangements. Columbia has asked for no exclusive privileges at these semi-public institutions. It has been our aim simply to develop those powers and opportunities that depend upon mutual co-operation. I hope that in time important results will flow from this policy.

In order to meet the case of persons residing in the city who might wish to attend the regular lectures of the university, and who might be competent to profit by them, permission was given to the Faculties of Political Science and Philosophy, with the consent of the professor delivering the course and of the president, to throw open certain courses to auditors on the payment of a proper fee. The Faculty of Political Science has deemed it unwise to act under this authority. The report of the dean, attached to this report, gives the reasons of the faculty, and also states that in lieu thereof the different members of the faculty propose next year to give courses of evening lectures upon their specialties, to be open to the public. The Faculty of Philosophy has opened certain courses to auditors, the details of which are given in the report of the dean of that faculty, who is of the opinion that no disadvantage has resulted therefrom. I look upon the practice as an experiment worth try-

ing, that is to be adhered to or abandoned according to the results of experience.

Especial record should be made of the able addresses bearing upon the Evidences of Christianity, on "Primary Convictions," delivered under the auspices of the university by the Lord Bishop of Derry, Bishop Alexander. These lectures, six in number, were delivered during Lent in the Church of the Heavenly Rest, which was crowded on every occasion to its utmost capacity by an audience that manifested its interest by its profound attention.

During the year an invitation was received from the University of Dublin, to be represented at the celebration of its Ter-centenary, to be held on the 8th July, 1892. The invitation was accepted, and Prof. H. T. Peck, Professor of Latin, was appointed to represent Columbia.

Several important steps have been taken looking towards the enlargement of the work of the university. Contracts have been signed for the addition of two stories to the Sixtieth Street wing of the College of Physicians and Surgeons, at a cost of something over sixty-two thousand dollars. This is independent of the cost of outfit and furniture. These two stories provide much-needed additional accommodation for the Departments of Anatomy and Pathology and afford temporary accommodation to the new Department of Biology. It is proposed to locate the Department of Biology ultimately upon the new site, so that when this department is moved the effect will be to give a further enlargement to the Medical School.

A small observatory has been authorized to be erected at once, with the consent of the Governors

of the New York Hospital, upon the new site. The cost of the observatory has been provided for by friends of the college. A series of simultaneous observations are to be undertaken here, in co-operation with the Italian Royal Observatory at Capodimonte, near Naples, for the purpose of determining the variation of terrestrial latitudes. As the two observatories are almost precisely on the same parallel of latitude, and as they are to use identical instruments made for the purpose, the results promise to be of great interest.

Several new appointments have been made with reference to new and enlarged work. The Department of Literature has been strengthened by the permanent appointment of Mr. Brander Matthews as a professor of literature. Mr. Brander Matthews has lectured at the college with great acceptance during the year, as a substitute for Professor Price, who has been absent on leave. This appointment permanently strengthens the English Department, which now is one of the strongest in the university. I am happy to say that an interest has been awakened in the study of English, and a degree of attention is being paid to it, that is altogether satisfactory.

A new adjunct professor of physics has been appointed to enable Professor Rood to cope with the increasing demand upon his department, springing out of the laboratories placed at his disposal a year ago. Mr. Wm. Hallock, Ph.D., a graduate of Columbia, of the Class of 1879, has been called from the United States Geological Survey at Washington to fill this chair. The Department of Physics consists now of a professor, an adjunct professor, an instructor, a tutor, and two assistants. Two years ago a pro-

fessor and a tutor comprised the entire force. This illustrates the strengthening that has taken place in many of the departments.

In the College of Physicians and Surgeons, I regret to be obliged to report the resignation of Dr. Charles McBurney, the senior professor of surgery, owing to the great pressure upon him of his private practice and the new duties that fall upon him in view of the completion of the Syms Operating Building, of which he is the director, at the Roosevelt Hospital. I am happy to say, however, that Dr. McBurney continues his connection with the College of Physicians and Surgeons, having accepted an appointment as professor of clinical surgery, and it is certain that he will continue to do all in his power to forward the interests of the school. Dr. Robert F. Weir, by common consent, has been called to the vacancy thus caused in the chair of surgery. At the request of the medical faculty, a new chair of pathology has been created in that faculty out of the chair of practice, and the accomplished director of the pathological laboratory, Dr. T. Mitchell Prudden, has been appointed professor of pathology.

The chair of adjunct professor of mining, established a year ago, but not filled on account of the absence on leave of Professor Munroe, the professor of mining, has now been filled by the appointment of Mr. Robert Peele, Jr., E.M., a graduate of the School of Mines, of the Class of 1883. Mr. Peele leaves his practical work in the field, in South America, to assume the duties of his chair in October next.

Five years ago, some friends of Mr. Richard J. H. Gottheil offered to provide funds to maintain a chair



of rabbinical literature for the period of five years, if Mr. Gottheil could have the appointment. This arrangement terminates by limitation with the present year, and Columbia has now appointed Dr. Gottheil, on his own merits, to be professor of rabbinical literature and the Semitic languages. It is pleasant to be able to state that Dr. Gottheil has been engaged to write the volume on the Hebrew bowls brought from Niffer in Babylonia by the expedition of the University of Pennsylvania. The friends who made the original provision for the chair of rabbinical literature have expressed the hope that they may yet be able to provide it with a permanent endowment.

Adjunct Professor J. F. Kemp has been promoted to be professor of geology, and Mr. Crocker to be adjunct professor of electrical engineering. Dr. Pupin, while retaining his connection with the electrical department, has been promoted to be adjunct professor of mechanics. Additional tutors have been appointed in the Departments of Astronomy and French.

The year has witnessed the death of three men, all at a ripe old age, all of whom have rendered conspicuous and lasting service to Columbia. On February 7, 1892, Prof. Wm. G. Peck, professor of higher mathematics and astronomy, died almost instantaneously while engaged in conversation. He was unwell, but was not supposed to be in immediate danger. Coming to the College in 1857, he had nearly completed his 35th year of active and continuous service. He was an excellent teacher, and was well known as the author of a number of mathematical text-books of a high order. On June 29, 1892, with equal suddenness

at the last, Prof. Theodore W. Dwight died at his home in Clinton, N. Y. Dr. Dwight came to Columbia in 1858 as professor of law, to establish a law school. His rare personality and exceptional abilities as a teacher achieved an instant success. Dr. Dwight remained at the head of the Columbia Law School until June, 1891, when he retired as professor emeritus of the law of contracts, and of maritime and admiralty law. As a teacher of law Dr. Dwight had few, if any, equals, and his name and memory will be revered by thousands of successful practitioners in all parts of the Union. On the 30th of May, 1892. Lewis M. Rutherfurd, LL.D., passed away. Mr. Rutherfurd was for twenty-five years a trustee of the College, and he remained to the last a constant benefactor of the observatory. Mr. Rutherfurd's fame as an astronomer is world-wide. He was one of the pioneers in celestial photography, and the accuracy of his work, although done in the infancy of the art, gives it the greatest value for comparison with the observations of the present time. The principal instruments in the College observatory are his gift, and he also gave to the College all his negatives of sun, moon, and star clusters. The measures of the star clusters are now being reduced at the College, hitherto with funds supplied by him. Since his death, his son, Mr. Rutherfurd Stuyvesant, has made arrangements to have this work carried forward to completion.

By the death, early in the year, of the widow of the late President Barnard, the College, as residuary legatee, came into possession of his estate, amounting to about \$65,000. In accordance with the terms of the

will, a gold medal of \$200 value is to be awarded every five years by the trustees of the College, on the recommendation of the National Academy of Sciences, to the most distinguished benefactor of the race, in the interval, through some discovery or application of science. This medal is to be known as the Barnard Medal for Meritorious Service to Science.

The National Academy of Sciences has accepted the duty required of them under the will, and the first award will be made at the commencement of 1895. The sum of \$10,000, also, has been set aside as a foundation for the Barnard Fellowship in Science, in regard to which the following regulations have been established :

“ 1. There shall be established in Columbia College a fellowship to be entitled the Barnard Fellowship for Encouraging Scientific Research; to be held by some alumnus of the School of Arts or the School of Mines, who has evinced aptness for physical investigation, and who may be disposed to devote himself to such investigation for some years continuously.

“ 2. The holder of the fellowship shall be nominated by the joint vote of the Faculties of the School of Arts and the School of Mines, and shall be appointed by the trustees. Such appointment shall be for the term of one year only, but the fellow, for the time being, shall be eligible for appointment from year to year upon the recommendation of the two faculties.

“ 3. The fellow so appointed shall be entitled to receive during his term of office the net income of the capital sum constituting the endowment, to be paid him in four equal quarterly instalments at the usual times of paying college officers.

“ 4. It shall be the duty of the fellow so appointed to devote himself faithfully to the investigation of some sub-

ject in physical science, at this college or at some other in this country or abroad, under the supervision and direction of some known physicist approved by the president and the faculties of the School of Arts and the School of Mines.

"5. It shall be the duty of the said fellow to make a report quarterly to the president, giving an account of the work in which he has been engaged during the three months preceding; which report shall be certified by the physicist superintending and directing him.

"6. In case of failure faithfully to fulfil the obligations imposed upon him, the said fellow shall forfeit all privileges and emoluments conferred upon him by his appointment to the fellowship, and on report by the president of such delinquency, the trustees may at any time declare the said fellowship to be vacant.

"7. The foregoing regulations may at any time be altered or modified in any particular not in conflict with the conditions of the bequest."

The remainder of the estate is known as the "Barnard Fund for the Increase of the Library," and the income therefrom is to be devoted to the purchase of books, "especially those relating to Physical or Astronomical Science; selecting in preference those which may be likely to be most useful to persons engaged in scientific investigation." The library has already begun to reap the advantage of this generous bequest. With the proceeds of this fund, the library of Mr. Struve, former director of the Russian National Observatory at Pulkowa, has been purchased. This library contains over 4,000 well selected books, including many valuable sets of the proceedings of scientific bodies, besides 3,000 pamphlets.

On the death of Mrs. Barnard, it was learned that she also had left her estate to the College, amounting

to about \$20,000, to be added to the fund bequeathed by her husband.

A more complete demonstration of the affection which President and Mrs. Barnard felt for Columbia, and of their devotion to its welfare, it would be hard to give. Having lived together in the service of the College for twenty-five years, in death they were not divided. Both of them gave to the College all that they had.

The library continues to grow rapidly by gift and purchase, the increase for the year being 15,408 bound volumes, independent of pamphlets. This does not include the Struve library, which has not yet come to hand. Of this number, 10,012 volumes were obtained by purchase or exchange, and 5,396 volumes were received as gifts. Notable among the gifts have been the volumes, more than 1,000 in number, presented by Mr. Alexander T. Cotheal of New York. Mr. Cotheal invited the librarian to select from his private library such works in literature, philosophy, and the applied sciences as might be most useful to the College, thus making us a second time his debtor. He had already presented to the College, a year or two ago, a valuable collection of Oriental manuscripts.

Messrs. Henry E. and C. E. Pellew have given to the library nearly all of the books belonging to the late George Pellew; and Mrs. Wm. G. Peck placed at the disposal of the library all of the books belonging to the late Professor Peck.

The Avery Architectural library continues to grow by the interested giving of the generous founders, Mr. and Mrs. Samuel P. Avery. It now

numbers 3,500 volumes, and at least 1,000 volumes are on the way. The librarian says : " Its fulness, completeness, and richness in many fields already far exceed what the committee originally had dared to hope for, and if its development on present lines and at present rates can be continued it will soon be unequalled."

The Temple Emanu-El also presented its rare library of Hebrew literature to the College, but it has not yet been placed upon the College shelves. It is held subject to the order of the College as soon as we are ready to receive it. The number of volumes is estimated at 2,500 ; of manuscripts 43, of which 16 have never been edited. Some of these are unique. Some of the oldest and rarest prints may be found here.

Shelving for 60,000 volumes has been added to the library during the year, and it is hoped that this will suffice until we are ready to move to the new site. I am happy to report, in connection with this increase of the library, a corresponding increase in the use of it. The large reading-room is almost continually full of readers during the academic year, and is often crowded. The record of books loaned to be read at home, although representing but a small part of the use of the library, nevertheless serves as an index of the growing use. These loans were, for the last six years, ending June 30th :

1887 .....	13,373
1888 .....	12,615
1889 .....	11,325
1890 .....	16,004
1891 .....	22,721
1892 .....	26,632

The treasurer reports the receipts of the following sums in money during the year from gifts and legacies :

## MISCELLANEOUS GIFTS.

From C. S. Smith,	
For purchase of books.....	\$ 100.00
From W. B. Devereux,	
For prize in electrical course.....	100.00
From W. G. Low,	
For prize essay on civil-service reform...	100.00
From R. N. Toppan,	
For Toppan prize.....	150.00
From Herman Hollerith,	
For refund of free tuition.....	700.00
From Jesse Seligman,	
For Seligman fellowships.....	1,000.00
From { W. B. Kunhardt.....	\$ 50
{ Esther Herman.....	100
{ F. A. Schermerhorn.....	100
{ J. I. Kane.....	100
{ Herbert Valentine.....	25
{ Samuel Sloan.....	100
{ Sanders & Son.....	25
{ Seth Low.....	50
For botanical books.....	550.00
From S. P. Avery,	
For Avery Architectural Library.....	4,576.35
From F. A. Schermerhorn,	
For fossils and biological books.....	1,400.00
From friends of the college,	
For latitude observatory on the new site,	718.00
	<hr/>
	\$9,394.35

## GIFTS

On Account of Subscriptions to Bloomingdale Site.

From Henry C. Carter.....	\$ 150.00
Jacob H. Schiff.....	5,000.00
Samuel D. Babcock.....	5,000.00
Oswald Ottendorfer.....	5,000.00
Seth Low.....	1,000.00
Wm. C. Schermerhorn.....	100,000.00
Samuel Sloan.....	5,000.00
A. A. Low.....	5,000.00
	<hr/>
	\$126,150.00

## LEGACIES.

From estate of the late President Barnard, \$	10,500.00	
From estate of the late D. B. Fayer-		
weather.....	150,928.71	
	<hr/>	161,428.71
		<hr/>
		\$296,973.06

In addition to the actual receipts of money by the treasurer during the year for the purchase of the Bloomingdale site, there remain for the same purpose pledges, to be redeemed for the most part in the next two years, amounting to \$289,000. The subscriptions to this fund on the 30th June, 1892, were as follows :

J. Pierpont Morgan.....	\$100,000	
W. C. Schermerhorn.....	100,000	
Cornelius Vanderbilt.....	100,000	
D. Willis James.....	50,000	
A. A. Low.....	15,000	
Morris K. Jesup.....	5,000	
A. S. Hewitt.....	5,000	
Seth Low.....	5,000	
R. Fulton Cutting.....	10,000	
J. H. Schiff.....	5,000	
S. D. Babcock.....	5,000	
Oswald Ottendorfer.....	5,000	
Samuel Sloan.....	5,000	
Henry Parish.....	5,000	
H. C. Carter.....	150	\$415,150
		<hr/>
Paid on account.....		\$126,150
Still due .....		289,000

A summary of the most interesting statistics concerning the university is presented herewith. For further details, as well as for further particulars con-



cerning the several schools, attention is asked to the appendix to this report and to the reports of the several deans.

## TEACHING STAFF, 1891-92.

Professors.....	51
Emeritus Professors.....	8
Adjunct Professors.....	13
Clinical Professors.....	6
Instructors.....	20
Tutors.....	13
Prize Tutors.....	3
Assistants.....	21
Honorary Assistant.....	1
Curators.....	2
Lecturers.....	16
Director of Laboratories.....	1
Demonstrators .....	3
Assistant Demonstrators.....	7
Clinical Lecturers.....	3
Chiefs of Clinic.....	10
Clinical Assistants.....	48

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 226

Last year the numbers given were 220, but this total included 26 fellows, 2 honorary fellows, and 8 honorary assistants. Officers of the College, who were known last year as fellows, appear this year as assistants. The 12 university fellows of this year do not appear in the foregoing table, a fellow being looked upon now as an advanced student. The actual increase for the year of the effective teaching force is 28 men.

## STUDENTS.

	1889-90.	Percentage.	1890-91.	Percentage.	1891-92.	Percentage.
Undergraduates.....	269	16.19	272	15.56	298	18.98
Graduates .....	515	31.01	556	31.81	460	29.30
Non-graduate profes- sional students.....	877	52.80	920	52.63	812	51.72
	<u>1,661</u>	<u>100%</u>	<u>1,748</u>	<u>100%</u>	<u>1,570</u>	<u>100%</u>
Collegiate Course for Women (now super- seded by Barnard College).....	10		8		3	
	<u>1,671</u>		<u>1,756</u>		<u>1,573</u>	

## SUMMARY BY SCHOOLS.

	1890-91.				1891-92.			
	No. holding degree.	Without degree.	Total.	Percentage of degrees.	No. holding degree.	Without degree.	Total.	Percentage of degrees.
Law.....	245	380	625	39%	108	210	318	34 %
Medicine.....	214	320	534	40%	232	338	570	41 %
Mines.....	50	227	277	18%	58	293	351	16.5%
Political Science..	71	126	197	36%	82	129	211	39 %
Philosophy.....	47	40	87	54%	56	74	130	43 %
	<u>627</u>	<u>1,093</u>	<u>1,720</u>		<u>536</u>	<u>1,044</u>	<u>1,580</u>	
Less duplicates...	71	173	244		76	232	308	
	<u>556</u>	<u>920</u>	<u>1,476</u>	37%	<u>460</u>	<u>812</u>	<u>1,272</u>	36 %
Arts.....			272				298	
Coll. Course for Women.....			8				3	
Grand total.....			<u>1,756</u>				<u>1,573</u>	

It is interesting to note that during the last three years the non-graduate professional students have become each year a smaller proportion of the university. The proportion of undergraduates and of graduate

students has varied, the gain of undergraduates this year as compared with last being almost  $3\frac{1}{2}$  per cent.

It is clear from the foregoing figures that there has been a very great falling off in the attendance upon the Law School, and a gain in all the other schools. The loss in the Law School, great as it has been, is not greater than was anticipated. Leaving out of view all other changes, the old arrangements provided for two sessions a day pursuing the same subjects, one in the morning and one in the afternoon, both so timed as to admit of attendance upon offices in connection with the work of the school. The new arrangements provide for a single session only, and for the first two years of the course at hours that do not lend themselves to office-work at the same time. These changes were deliberately made, with a full appreciation of the probable effect on the numbers in attendance, with the twofold purpose of making the Law School an integral part of the university, unembarrassed by the thralldom of subservience to office-work, and of making the law students look upon their work in the school as the chief business of their lives for the time being. These objects have been completely attained. This very unusual element, however, makes the comparison in statistics of the two years difficult, and in some respects misleading. The total number in the university, for instance, without regard to the Collegiate Course for Women, which has been superseded by Barnard College and which is therefore expiring by limitation, has fallen off from 1,748 to 1,570, a net loss of 178 men. The fact is, however, that, except in the Law School, there has been a gain in numbers in all the schools.

Neither is it easy to say precisely what the loss and gain has been, school by school, owing to the large number of duplications—that is, of men who are studying under more than one faculty and so appear on the records of more than one school. The figures indicate clearly that this class of students is constantly growing. In 1890-91, out of a total of 1,748 students, there were 244 duplications. In 1891-92, out of 1,570 students there were 308 duplications. This result is most gratifying, for it shows not only that the old line of division between the schools is being broken down, but also that Columbia now offers to students a new opportunity of great value that is instantly being taken advantage of. This elasticity of organization I look upon as one of the greatest gains of the last two years.

An approximate estimate, however, of the loss and gain, school by school, may be made in this way:

	Net Total		Net Total	Net Loss
1890-91	1,748	1891-92	1,570	178

It may be assumed that in the figures of the Law School there are no duplicates, although that is not strictly so. The comparison would then be:

					Loss
Law School	1890-91	625	1891-92	318	307

Against this apparent loss in the Law School, there is in the university an actual net loss of only 178 men.

Thus 307 less 178 = 129, which figure represents the gain to be distributed among the other schools.

The actual gain in the School of Arts is.....	26
“ “ “ “ “ “ “ “ Medicine.....	36
Together.....	62

Deducting 62 from 129 we have a gain of 67 men to distribute between the other three schools. I estimate that this number would be pretty accurately distributed as follows :

To the School of Mines.....	38
“ “ “ “ Political Science.....	7
“ “ “ “ Philosophy.....	22

This calculation, doubtless, is approximately correct, but when a student registers in several schools it is not always clear to what school his attendance at Columbia is chiefly due. This calculation assumes that the Law School has been the determining factor in every case in which it is concerned, but this assumption is itself probably only approximately correct.

The School of Political Science always has owed a large number of its students to the Law School, or rather it always has been the case, and naturally, that the same students frequently have wished to study both private and public law. In 1890-91, with a Law School of 625 students, the School of Political Science numbered only 197 men. In 1891-92, with a Law School of 318 students, the School of Political Science numbered 211 men. This reflects two things : first, a disposition on the part of the law faculty to encourage the study by law students of public law ; and second, an independent growth in the study of political science that is in no way adequately indicated by the small numeral of actual growth in the comparison with last year.

The graduate students at Columbia during the year represent 87 colleges and universities in the United States and 14 in foreign countries, besides 19 medical schools. The student body as a whole comes

from 41 States and Territories of the Union, and  
from 21 foreign countries.

#### DEGREES CONFERRED IN 1891-92.

Bachelor of Arts .....	37
Bachelor of Philosophy.....	11
Bachelor of Laws.....	41
Doctor of Medicine.....	116
Civil Engineer.....	18
Mining Engineer.....	9
Electrical Engineer.....	7
Master of Arts.....	27
Doctor of Philosophy .....	3
Doctor of Letters (honorary) .....	1
Doctor in Sacred Theology (honorary).....	1
Doctor of Laws (honorary).....	3
Total.....	274

I take pleasure in saying that the spirit throughout the university is admirable. In every direction members of the faculties are developing new opportunities for the students, and the students are responding with a zeal and earnestness that are full of promise. It is especially noteworthy that departments, as well as faculties, are working together with the utmost harmony and are beginning to develop importantly those capacities that depend on mutual co-operation. I see nothing of the desire to magnify this or that department at the expense of others, but I find everywhere a great desire to contribute as much as possible to the best total result. From such a spirit everything is to be hoped.

Respectfully submitted,

SETH LOW,  
*President.*

October 3, 1892.

## APPENDIX.

### VACANCIES, DATING FROM JULY 1, 1892.

CHARLES MCBURNEY, M.D.,	Resigned (appointed Professor of Clinical Surgery.)
FARLEY B. GODDARD, Ph.D.,	Term expired.
GUSTAVUS T. DONNELL, A.M.,	" "
THATCHER T. P. LUQUER, C.E.,	" "
FRANK R. HATHAWAY, A.M.,	" "
LEWIS B. CARLL, A.M.,	" "
HEWLETT R. CONNELL, C.E.,	" "

### PROMOTIONS, DATING FROM JULY 1, 1892.

JAMES F. KEMP, A.B., E.M.,	Professor of Geology.
FRANCIS B. CROCKER, E.M.,	Adj. Professor of Electrical Engineering.
MICHAEL I. PUPIN, Ph.D.,	Adj. Professor of Mechanics.
GRENVILLE T. SNELLING, B.S.,	Instructor in Architecture.

### APPOINTMENTS, DATING FROM JULY 1, 1892.

R. J. H. GOTTHEIL, Ph.D.,	Professor of Rabbinical Literature and the Semitic Languages.
ROBERT PEELE, Jr., E.M.,	Adj. Professor of Mining.
WILLIAM HALLOCK, Ph.D.,	Adj. Professor of Physics.
BRANDER MATTHEWS, A.M.,	Professor of Literature.
ROBERT F. WEIR, M.D.,	Professor of Surgery (a transfer).
T. MITCHELL PRUDDEN, M.D.,	Professor of Pathology (change of title).
CLARENCE H. YOUNG, Ph.D.,	Instructor in Greek.
*JOSEPH T. MONELL, E.M., E.E.,	Tutor in Astronomy.
LOUIS MARIE AUGUSTE LOISEAUX,	Tutor in French.
ARTHUR WILLEY,	Tutor in Biology.
ANDREW E. FOYÉ, C.E.,	Tutor in Civil Engineering.
OLIVER S. STRONG, A.M.,	Assistant in Biology.
LINDLEY M. KEASBEY, Ph.D.,	Assistant in Political Economy and Social Science.
CHARLES T. PARKER, M.D.,	Assistant in Operative Surgery.
C. C. TROWBRIDGE,	Assistant in Physics.
JAMES TOWART, C.E.,	Assistant in Engineering.
FRANKLIN H. GIDDINGS, A.M.,	Lecturer on Sociology.
RALPH S. ROUNDS, A.B., LL.B.,	Prize Lecturer in Law.

Mr. Ernest Freund appointed Lecturer on Administrative Law during the absence of Professor Goodnow, on leave.

F. M. Simonds, Ph.D., appointed Lecturer on Assaying during the absence of Professor Ricketts, on leave.

\* Appointment dates from March 7, 1892.

## CHAPLAINS.

1891-92.

October,	1891.	Rev. REESE F. ALSOP, D.D., St. Ann's Church, Brooklyn.
November,	"	Rev. HENRY MOTTET, Church of the Holy Communion.
December,	"	Rev. WILLIAM M. GEER, St. Paul's Church.
January,	1892.	Rev. DAVID H. GREER, D.D., St. Bartholomew's Church.
February,	"	Rev. CHARLES R. BAKER, Church of the Messiah, Brooklyn.
March,	"	Rev. CHAUNCEY B. BREWSTER, Grace Church, Brooklyn Heights.
April,	"	Rev. W. H. VIBBERT, D.D., Trinity Chapel, 25th Street.
May,	"	Rev. GEORGE R. VANDEWATER, D.D., St. Andrew's Church.

## LECTURES.

The following lectures were given during the academic year of 1891-2 :

At the Berkeley Lyceum—eight lectures by Mr. Edmund Clarence Stedman on

## THE NATURE AND ELEMENTS OF POETRY.

November	10, 1892.	Oracles Old and New.
"	13, "	What is Poetry?
"	17, "	Creative Poetry ; and the Poetry of Self-Expression.
"	20, "	Melancholia : the Poetry of Self- Expression.
"	24, "	Beauty.
December	1, "	Truth.
"	4, "	Imagination.
"	8, "	The Faculty Divine : Passion, In- sight, Genius, Faith.



In Room 46, Hamilton Hall—eight lectures by Benjamin Ives Gilman, A.M., on

THE PSYCHOLOGY OF MUSIC.

November	5,	1891.	Pitch.
"	10,	"	Timbre.
"	12,	"	Interval.
"	17,	"	Scale.
"	19,	"	Tonality.
"	24,	"	Measure.
December	1,	"	Harmony.
"	3,	"	Expression.

In Room 15, Hamilton Hall—thirteen lectures by Prof. George William Warren, on

PRACTICAL MUSIC.

February	2,	1892.	Music as a form of emotional expression ; origin of music ; the distinction between noise and musical sounds.
"	9,	"	Production of sound by wind ; timbre and pitch ; the syren.
"	16,	"	Production of sound by friction and percussion ; acoustics ; resonance.
"	23,	"	The scale ; ancient and modern theories ; value and significance of the true scales.
March	1,	"	The history and theory of music.
"	8,	"	The psychology and mysteries of music ; the triad and basis of harmony.
"	15,	"	The major and minor modes ; the cycle of the twenty-four keys enharmonically explained.
"	22,	"	Dynamics of musical expression ; rhythm, phrasing and conducting ; solo performance, vocal and instrumental.
"	29,	"	Musical composition and sketches of eminent musicians and their methods.
April	5,	"	The voice and singing.
"	12,	"	The orchestra and description of the different instruments contained in it, and their use.
"	19,	"	The history and development of the violin.

April 26, 1892. The history and development of the organ and pianoforte.

In Room 15, Hamilton Hall—thirteen lectures by John C. Van Dyke, A.M., on

ANCIENT ITALIAN AND MODERN FRENCH ART.

February	5,	1892.	Early Christian and Mediæval Painting.
"	12,	"	Romanesque and Gothic Painting.
"	19,	"	The Early Renaissance; the Florentines.
"	26,	"	The Early Renaissance; the Umbrians, Bolognese, and Paduans.
March	4,	"	The High Renaissance; the Great Florentines, Raphael, etc.
"	11,	"	The High Renaissance; Leonardo da Vinci, Andrea del Sarto, and Correggio.
"	18,	"	The Early Venetians; the Vivarini, Bellini, etc.
"	25,	"	The Great Venetians; Giorgione, Titian, etc.
April	1,	"	The Decadence in Italy and Rise of French Painting.
"	8,	"	The Classicists of the First Empire; David, etc.
"	22,	"	The Romanticists; Delacroix, etc.
"	29,	"	The Naturalists and Realists; Millet, Courbet, etc.
May	5,	"	The Semi-Classicists and Academicians; Gérôme, Bougereau, etc.

In Room 15, Hamilton Hall—six lectures by William J. Henderson, A.M., on

THE HISTORY OF MUSIC.

March	7,	1892.	The Elementary Period.
"	14,	"	The Spirit of Music.
"	21,	"	The Evolution of Form.
"	28,	"	The Evolution of Style.
April	4,	"	The Lyric Drama.
"	11,	"	Reformers and Music-Dramas.

In Room 15, Hamilton Hall—eight lectures by Prof. N. L. Britton, Ph.D., on

THE VEGETABLE KINGDOM.

March	9,	1892.	The Algae.
"	16,	"	The Fungi and Lichens.
"	23,	"	The Mosses and Ferns, and their Relatives.
"	30,	"	The Cone-bearing Trees and their Allies.
April	6,	"	The Endogenous Flowering Plants.
"	13,	"	The Exogenous Flowering Plants.
"	20,	"	The Past History of the Vegetable Kingdom.

In Room 15, Hamilton Hall, a lecture by Mr. John McMullen.

February 12, 1892. The Gladiators.

In Room 10, Library Building, a lecture by William H. Thompson, M.D., LL.D.

February 16, 1892. Materialism and Modern Physiology of the Nervous System.

In Room 10, Library Building, a lecture by Prof. A. Loissette.

March 22, 1892. The Conditions of Learning and Retaining.

In Room 11, Library Building—ten lectures by Prof. W. R. Ware, on

ANCIENT AND MODERN ARCHITECTURAL HISTORY.

March	15,	1892.	Egypt.
"	22,	"	Egypt.
"	29,	"	Athens.
April	5,	"	Rome.
"	12,	"	Italy.
"	19,	"	Venice.
"	26,	"	France.
May	3,	"	Spain.
"	10,	"	Germany.
"	17,	"	England.

In the Great Hall, Cooper Union—five lectures by Mr. Russell Sturgis, on

THE APPLICATION OF ANCIENT ARCHITECTURE TO  
MODERN USES.

February	2,	1892.	The Romanesque Styles of France and Germany.
"	9,	"	The Gothic Styles of France and England.
"	16,	"	The Byzantine Styles of Italy and the East.
"	23,	"	The Architecture of Imperial Rome and of the Renaissance.
March	1,	"	Originality in Modern Architecture.

In the Great Hall, Cooper Union—four lectures by Prof. Henry F. Osborn, on

THE RELATIONS OF MAN TO NATURE.

March	8,	1892.	The Expression of the Emotions in the Human Face, in Relation to Anatomy and Art.
"	15,	"	The Contemporary Evolution of Man ; or, Changes Now Taking Place in the Human Body.
"	22,	"	Recent Discoveries in the Science of Heredity.
"	29,	"	The Evolution of the Horse.

In the Church of the Heavenly Rest—six public addresses by The Right Reverend William Alexander, D.D., Lord Bishop of Derry and Raphoe, on

PRIMARY CONVICTIONS.

March	13,	1892.	Opinion and Convictions. The Creeds summaries of convictions. What the Creeds are, and are not.
"	17,	"	First Primary Conviction. "I believe in God, the Father Almighty, Maker of heaven and earth." What Scripture binds, and does not bind, us to believe about creation.
"	20,	"	Second Primary Conviction. "I believe in Jesus Christ, who was conceived by the Holy Ghost, born of the Virgin Mary."

March	20,	1892.	What evidence can, and can not, be given of the incarnation.
"	24,	"	Third Primary Conviction. "He shall come again to judge."
"	27,	"	What is, and is not, "de fide" about the judgment of condemnation. Fourth Primary Conviction. "I believe in the Holy Ghost, who spake by the prophets."
"	31,	"	What Scripture is, and is not. Fifth Primary Conviction. "I believe in the resurrection of the body." What the resurrection of the body does, and what it does not, necessarily involve.

### TABLE OF DEGREES HELD BY GRADUATE STUDENTS.

Number holding degree of	A.B....	276
" " " "	B.D....	3
" " " "	B.E....	2
" " " "	B.L....	1
" " " "	B.S....	60
" " " "	E.E....	1
" " " "	Lit.B. . .	1
" " " "	LI.B. . .	3
" " " "	B.S.Agr.	2
" " " "	M.E. . .	5
" " " "	C.E....	9
" " " "	Ph.B. . .	42
" " " "	Ph.G....	13
Zeugniss der Reife.....		2
Certificate of Lycee.....		1
		<hr/>
Number holding first degree.....		421
Number holding degree of	A.M....	36
" " " "	M.S....	3
" " " "	Ph.D. . .	6
" " " "	M.D....	26
		<hr/>
		71
		<hr/>
Holding more than one degree.....		492
		<hr/>
Total number holding degrees.....		32
		<hr/>
		460

## PARENTAGE OF DEGREES.

Agricultural and Mechanical College of Texas.....	1
Agricultural College of Pennsylvania.....	1
Allegheny College, Pa.....	1
Amherst College, Mass.....	15
Antioch College, Ohio.....	3
Beloit College, Wis.....	2
Bowdoin College, Me.....	2
Brooklyn Polytechnic Institute, N. Y.....	2
Brown University, R. I.....	3
Bryn Mawr College, Pa.....	1
Bucknell University, Pa.....	1
Buffalo Law School, N. Y.....	1
Christian Brothers' College, Tenn.....	1
Colgate University, N. Y.....	2
College of the City of New York.....	57
College of New Jersey (Princeton).....	35
College of Pennsylvania.....	1
College of Pharmacy, N. Y. City.....	12
College of Pharmacy, Philadelphia, Pa.....	1
College of Physicians and Surgeons, N. Y.....	1
Columbia College, N. Y.....	80
Cornell University, N. Y.....	5
Dartmouth College, N. H.....	3
Detroit College, Mich.....	1
Franklin and Marshall College, Pa.....	1
General Theological Seminary, N. Y.....	1
Geneva College, Pa.....	1
Georgetown College, D. C.....	1
Georgetown College, Ky.....	1
Hamilton College, N. Y.....	4
Harvard University, Mass.....	32
Hobart College, N. Y.....	1
Holy Cross College, Mass.....	3
Illinois College.....	1
Johns Hopkins University, Md.....	3
Knox College, Ill.....	1
Lafayette College, Pa.....	3
Lawrence University, Wis.....	1
Maine State College.....	1
Manhattan College, N. Y.....	11
Marietta College, Ohio.....	2
Maryville College, Tenn.....	1
Massachusetts Institute of Technology.....	1
Mercer University, Ga.....	2
Oberlin College, Ohio.....	2

Ohio State University.....	1
Ohio Wesleyan University.....	5
Olivet College, Mich.....	1
Randolph-Macon College, Va.....	1
Rose Polytechnic Institute, Ind.....	1
Rutgers College, N. J.....	4
Santa Clara College, Cal.....	1
Seton Hall College, N. J.....	1
Shurtleff College, Ill.....	1
Spring Hill College, Ala.....	2
State University of Colorado.....	1
State University of Iowa.....	1
Stevens Institute of Technology, N. J.....	2
St. Francis Xavier College, N. Y.....	7
St. John's College, Md.....	2
St. Stephen's College, N. Y.....	1
Syracuse University, N. Y.....	5
Trinity College, Conn.....	5
Troy Polytechnic Institute, N. Y.....	1
University of Alabama.....	1
University of California.....	1
University of Cincinnati, O.....	1
University of the City of New York.....	4
University of Georgia.....	1
University of Indiana.....	1
University of Iowa.....	1
University of Minnesota.....	1
University of North Carolina.....	1
University of Pennsylvania.....	4
University of Rochester, .....	3
University of the South, Tenn.....	1
University of Vermont.....	3
University of Virginia.....	1
University of Wisconsin.....	2
Vassar College, N. Y.....	2
Wabash College, Ind.....	1
Wake Forest College, N. C.....	1
Washington and Jefferson College, Pa.....	3
Wesleyan University, Conn.....	6
Westminster College, Mo.....	1
Williams College, Mass.....	10
Yale University, Conn.....	54

453

## Foreign Universities :

Cartago College, Costa Rica .....	1
College de Beyrut, Turkey.....	1

College of Ottawa, Canada .....	I
Freiburg University, Baden, Germany.....	I
Garrett Biblical Institute.....	I
Gymnasium, Frankfurt a Main, Germany.....	I
Gymnasium, Königsberg Prussia.....	I
Institute Provincial de Guipuzcoa, Vergara, Spain.	I
Roumanian Lycée.....	I
St. Joseph's College, Canada.....	I
University of Costa Rica, C. A.....	I
University of New Brunswick, Canada.....	I
University of Toronto, Canada.....	I
Vienna Technical Military High School, Austria...	I

14

The degrees of M.D. were from the following institutions :

Albany Medical College, N. Y.....	I
Bellevue Hospital Medical College, N. Y.....	I
Cincinnati College of Medicine and Surgery.....	I
College of Physicians and Surgeons, Chicago, Ill...	I
College of Physicians and Surgeons, N. Y.....	2
Detroit College of Medicine, Mich.....	I
Geneva Medical College.....	I
Long Island Hospital Medical College, N. Y.....	I
Medical College of Indiana .....	I
Memphis Hospital Medical College, Tenn.....	3
Missouri Medical College.....	I
Southern Medical College, Ga.....	I
Tulane University, La.....	I
University of Buffalo, N. Y .....	I
University of the City of New York.....	2
University of Michigan.....	I
University of Virginia.....	2
Willamette University, Ore.....	I
Yale Medical School, Conn.....	2

25

Total,	492
Deduct duplications,	32
	460



## SUMMARY BY SCHOOLS.

	No. holding degree.	No. without degree.	Total.	Per cent. of degrees.
Law .....	108	210	318	33.9%
Medicine .....	232	338	570	40.7%
Mines .....	58	293	351	16.5%
Political Science...	82	129	211	38.9%
Philosophy .....	56	74	130	43. %
	<hr/> 536	<hr/> 1,044	<hr/> 1,580	
Less duplicates....	76	232	308	
	<hr/> 460		<hr/> 1,272	36.1%
Arts. ....			298	
Coll. Course for Women .....			3	
			<hr/> 1,573	

## RESIDENCES OF STUDENTS.

New York City.....	746
Brooklyn .....	162
Alabama .....	3
California .....	7
Colorado .....	5
Connecticut .....	35
Delaware .....	1
District of Columbia.....	6
Georgia .....	7
Idaho.....	1
Illinois .....	10
Indiana .....	4
Indian Territory .....	1
Iowa.....	5
Kansas .....	1
Kentucky.....	5
Louisiana .....	1
Maine .....	6
Maryland .....	5
Massachusetts .....	30
Michigan.....	3
Minnesota .....	6
Mississippi .....	1
Missouri .....	4
Nebraska .....	2
New Hampshire .....	6

New Jersey.....	165
New Mexico.....	1
New York State.....	204
North Carolina .....	6
Ohio.....	19
Oregon .....	5
Pennsylvania .....	29
Rhode Island.....	12
Tennessee .....	7
Texas.....	4
Utah .....	2
Vermont.....	5
Virginia .....	4
Washington.....	2
West Virginia.....	3
Wisconsin.....	10
Wyoming.....	1

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 1,542

## Foreign Countries :

Austria .....	1
Canada .....	6
Central America .....	3
Bermuda.....	1
Bohemia .....	2
Brazil, S. A.....	1
China .....	1
Cuba .....	1
Egypt.....	1
France .....	1
Germany.....	1
India .....	1
Italy .....	1
Liberia, West Africa.....	1
Mexico .....	1
Peru, S. A .....	1
Republic of Colombia, S. A .....	2
Russia.....	2
Spain .....	1
Syria .....	1
West Indies .....	1

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 31

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 1,573

# SCHOOL OF ARTS.

## REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1892.

*To the President of Columbia College  
in the City of New York:*

SIR:

I respectfully submit herewith the report of the operations and condition of the School of Arts for the academic year 1891-92.

The regular work of the School of Arts began as usual on the first Monday of October, and has been carried on without interruption and satisfactorily through the year. The instruction in the three lower classes has been given by the professors and other officers of the School of Arts, while that of the senior class has been under the direction of the University Faculties of Law, Mines, Political Science, and Philosophy.

The number of students who matriculated at the beginning of the year was 296; in the course of the year five were added, one in the junior class, two in the freshman class, and two specials, making the entire number 301, distributed as follows:

Seniors.....	38	or With specials added	Seniors.....	50
Juniors.....	59		Juniors.....	68
Sophomores.....	63		Sophomores.....	72
Freshmen.....	86		Freshmen.....	108
Special Students.....	52			
In the Collegiate Course for Women.....	3		Course for Women...	3

In the second column the specials are added to the several classes according to the studies pursued by them.

The ages of the students at the beginning of the Academic year in the several classes were :

Class.	No. in Class.	Average Age.	Oldest.	Youngest.
Seniors.....	38	20.16	24	18
Juniors.....	59	19.95	29	17
Sophomores.....	63	18.33	22	16
Freshmen.....	86	17.79	23	14
Specials.....	52	19.69	25	16

#### RESIDENCES OF STUDENTS IN SCHOOL OF ARTS.

New York City.....	176
Brooklyn.....	40
New Jersey.....	31
New York State*.....	41
Colorado.....	1
Connecticut.....	1
Georgia.....	1
Illinois.....	1
Maine.....	1
Massachusetts.....	1
New Hampshire.....	1
Ohio.....	1
Pennsylvania.....	1
Rhode Island.....	1
Vermont.....	2
Wisconsin.....	1

Under the College regulations students admitted to the freshman class, with conditions, are required to satisfy all conditions in the week following the Christmas vacation. Of the entering class forty-three entered with conditions, of whom nineteen had but a single condition each. At the examination in the first week in January all but two were able to satisfy their conditions ; these two were accordingly not allowed to continue in the class. Besides these, one member of the freshman class was withdrawn, and one freshman, one sophomore, and one special were dropped from the rolls.

\* New York State is exclusive of New York City and Brooklyn.

Of the senior class, thirty-four having fulfilled all the requirements and passed all the examinations received the degree of A.B. at the Commencement, June 8th ; four members of the class having failed in the examination were excluded. In addition, the degree of A.B. was conferred on one special student, who had made up, and passed a satisfactory examination on all the requirements for that degree ; and on one student recommended by the Faculty of Philosophy to the Faculty of Arts. The same degree was conferred on one member of the Collegiate Course for Women, who had complied with all the requirements of that course.

The studies of the freshman and sophomore classes were obligatory, and required, in the freshman year, sixteen hours a week attendance, in the sophomore seventeen hours. In the junior class there were eleven hours of required study and four of elective, per week.

French or German was a required study in the freshman and sophomore classes, and an elective in the junior. Spanish and Italian were elective in the junior year, but might be taken by any student of the two younger classes, who had proved himself proficient in both French and German.

The required studies of the junior class were :

Greek.....	2	hours	per	week.
Latin.....	2	"	"	"
English.....	3	"	"	"
History and Political Economy.....	2	"	"	"
Logic and Psychology.....	2	"	"	"

The elective studies of the same class were :

Greek.....	1	hour	per	week.
Latin.....	1	"	"	"
Analytical Geometry.....	3	hours	"	"
Physics.....	2	"	"	"
Mechanics.....	1	hour	"	"
Botany.....	1	"	"	"
French.....	2	hours	"	"
German.....	2	"	"	"
Italian.....	2	"	"	"
Spanish.....	2	"	"	"

The election made by the members of the class was :

No. in Class.	Greek.	Latin.	Anal. Geom.	Physics.		
59	17	7	5	38		
	Mechanics.	Botany.	French.	German.	Ital.	Span.
	5	13	22	30	4	3

The election in modern languages in the sophomore and freshman classes was :

	No. in Class.		
	Sophomore.	Freshman.	Total.
	63	86	149
French.....	28	50	78
German.....	32	36	68
Spanish.....	3	0	3

The studies of the senior class are all elective, and may be taken at the choice of the student in the courses that are open to them in the University Departments of Law, Mines, Political Science, and Philosophy. In the Department of Law the members of this class were allowed to take the entire first year course, ten hours per week, to which they were required to add five hours from other university courses. The following list gives the election made in the several faculties :

University Department of Law.....	12
“ “ “ Mines.....	23
“ “ “ Political Science.....	21
“ “ “ Philosophy.....	33

Of those whose studies were entirely in one department of the university the number was :

In Political Science.....	1
In Philosophy.....	2

Of those whose studies were in two departments the number was :

Law and Political Science.....	3
Law and Philosophy.....	4
Mines and Political Science.....	1
Mines and Philosophy.....	10
Political Science and Philosophy.....	2

Of those whose studies were pursued in three or more departments the number was :

In Law, Political Science, and Philosophy.....	3
“ Law, Mines, and Philosophy.....	1
“ Mines, Political Science, and Philosophy.....	10
“ Law, Mines, Political Science, and Philosophy..	1

Of the twelve students who elected the course in law six intended to pursue law as a profession, three were undecided as to their future career, and three took the study as part of a liberal education; while of those who elected scientific studies under the Faculty of Mines one only intended to continue the studies of that department professionally.

The particular studies under the several faculties are given in the following schedule :

#### Under the Faculty of Law :

The Junior Year Course of ten hours.....	11
Contracts and Real Estate, five hours.....	1

#### Under the Faculty of Mines :

Analytical Chemistry.....	1
General Chemistry.....	9
Astronomy.....	14
Practical Astronomy and Navigation.....	1
Botany.....	6
Calculus.....	1
Geology.....	1
Microscopy .....	1
Physics.....	15

#### Under the Faculty of Political Science :

Constitutional History of England.....	4
“ “ “ Europe and of the United States.....	15
Financial History of the United States.....	6
Institutes of Roman Law.....	2
French History.....	3
Historical and Political Geography.....	7
History of Political Theories.....	4
Political Economy.....	6
Political History of New York *.....	3
Relations of England and Ireland.....	1

\* This subject was not given through the year.

## Under the Faculty of Philosophy :

Anglo-Saxon.....	3	Greek.....	12
Danish.....	1	Hebrew.....	2
English Language and Literature.....	25	History of Philosophy.....	7
Ethics.....	8	Latin.....	4
Experimental Psychology..	2	Pædagogics.....	2
French Language and Literature.....	9	Swedish.....	1
German Language and Literature.....	7	Zoroaster and his Teachings.....	18

## Subjects of study elected by special students :

Astronomy.....	3	Latin.....	13
Blowpipe Analysis.....	1	Law.....	3
Botany.....	6	Logic.....	5
Chemistry.....	14	Mathematics.....	20
Drawing.....	1	Pædagogics.....	1
English.....	33	Philosophy.....	2
Ethics.....	1	Physics.....	13
French.....	27	Political Economy.....	5
German.....	20	Practical Astronomy and Navigation.....	1
Greek.....	8	Psychology.....	4
Hebrew.....	1	Spanish.....	2
History.....	24	Surveying.....	1
Historical and Political Geography.....	3	Qualitative Analysis.....	1
Italian.....	1	Zoroaster.....	4

The studies of the junior class during the past year have been in great measure required, four hours only out of the fifteen being elective. By recent action of the faculty, approved by the trustees, this relation has been reversed ; eleven hours per week have been assigned to elective studies, and the number of elective courses has been greatly increased.

In the sophomore class the number of hours per week given to mathematics has been reduced to two, and the hour thus vacated has been added to the Departments of Modern Languages. Chemistry heretofore was limited to one hour a week, while in the new arrangement it has three hours, and is made alternative with any language study except English.



In the freshman class the changes are in the reduction of the mathematical hours from five to three, and in the addition of one hour per week to modern languages.

The admission of special students, their position in our college scheme, and their relation to the regular classes not having proved entirely satisfactory, the faculty has appointed a committee to take the subject of special students into consideration, and to make regulations for the better supervision and government of such students.

The number of applicants for admission who were examined in the week ending June 4, 1892, was 125.

Preliminary : Of these the number who took the preliminary examination, intending to enter October, 1893, was.....	45
Final : The number of those who having taken the preliminary last year, now completed their examination, was.....	43
Full : The number of those who took a full examination was.....	32
Special.....	5
	<hr/>
	125

Respectfully submitted,

H. DRISLER,

*Dean.*

June 30, 1892.

#### OFFICERS OF INSTRUCTION.

Professors.....	16
Adjunct Professors.....	5
Instructors.....	8
Tutors.....	7
Lecturer.....	1
Assistants.....	4

## SCHOOL OF LAW.

### REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1892.

*To the President of Columbia College  
in the City of New York :*

SIR :

I have the honor to submit the following report of the work of the Law School for the academic year ending June 30, 1892.

The course of study adopted by the trustees for the academic year 1890-91 being temporary only, a new scheme of study came into effect at the beginning of the academic year 1891-92, which differs from the old in the following particulars.

I. It assumes three years as a unit of the course of study, the subjects being studied in detail as they are reached in course. Under the old scheme of study the first two years were taken as a unit and were devoted extensively to the study of subjects in outline, leaving the details thereof to be filled in, in the third year, which was therefore largely supplementary. To facilitate the treatment of the subjects in detail, the instruction in Contracts is devoted to pure or elementary contracts as distinguished from applied contracts, leaving the application of these principles to the various specific matters of contract, to be dealt with in those topics of the second and third years in which the principles of contract form a part, but only a part, of the legal questions involved. Thus in the course on contracts

are treated the elementary principles dealing with the formation, interpretation, performance, and discharge of contracts, while such subjects as Agency, Sales of Personal Property, Insurance, Negotiable Paper, and Partnership, in which while the principles of contracts are often applied, other legal doctrines are considered, are studied in the second and third years.

2. Under the new scheme of instruction the student studies concurrently through the year a number of subjects, no subject, with two exceptions, exceeding two hours per week. Under the old scheme the student studied one subject to its completion to the exclusion of all others, except in the senior year where two studies were carried on concurrently.

3. At present the student is required during the junior and senior years to take in each year ten hours of work per week, and twelve in the middle year. Formerly during the junior and middle years he took seven and one half hours a week and ten in the senior year.

4. The system of elective study has been introduced in part in the middle year, and prevails entirely in the senior year. Formerly, subject to the right of the student to elect in the middle year between the New York Code of Civil Procedure on the one hand and Common Law Pleading and Equity Pleading on the other, and in the senior year between a Private and Public Law course, the private law course including a course of about twenty lectures on the Constitution of the United States, the studies were all required.

5. A student is now allowed to combine, for his degree, private and public law. Heretofore the student could only take private law for his degree, except in the senior year, where, though he was allowed to take public law, he could not combine the two.

The following table gives the subjects taught during the year 1891-92, the names of the instructors, the number of lectures per week given in each subject, and the number of students examined therein.

INSTRUCTORS.	COURSES.	Hours per week.	Number of Students.
JUNIOR CLASS.			
Prof. Cumming	Common Law Pleading and Procedure.	1½	144
Prof. Keener	Contracts.	3	134
Prof. Burdick	Criminal Law and Procedure.	1½	186
Prof. Kirchwey	Elements of Jurisprudence.	1	121
Prof. Cumming	Domestic Relations.	1½	137
Prof. Kirchwey	Real Estate.	2	129
Prof. Burdick	Torts.	1½	203
MIDDLE CLASS.			
Prof. Goodnow	Administrative Law.	2	13
Prof. Burdick	Agency.	1	90
Prof. Cumming	{ New York Code of Civil Pro- cedure.		
Mr. Bishop		2	76
Prof. Burgess	Comparative Constitutional Law.	2	6
Prof. Keener	Equity Jurisprudence.	2	89
Prof. Cumming	Equity Pleading and Procedure.	1	50
Prof. Smith	History of European Law.	2	7
Mr. Richards	Insurance.	1	22
Prof. Kirchwey	Real and Personal Property.	2	89
Prof. Burdick	Sales of Personal Property.	1	89
SENIOR CLASS.			
Prof. Kirchwey	Bailments.	1	14
Prof. Keener	Equity Jurisprudence.	2	40
Prof. Kirchwey	Evidence.	1	46
Prof. Smith	International Private Law.	1	5
Prof. Burdick	Negotiable Paper.	1	50
Prof. Burdick	Partnership.	1	17
Prof. Cumming	Private Corporations.	2	56
Prof. Moore	Public International Law.	1	8
Prof. Keener	Quasi Contracts.	2	19
Prof. Kirchwey	Suretyship and Mortgage.	2	52
Prof. Smith	Systematic Jurisprudence.	2	1
Prof. Cumming	Wills and Administration.	2	40

During the year 1891-92 a course in Admiralty and Shipping was offered to seniors but was not elected. To the middle-year class, the junior or first-year courses in Common Law Pleading and Procedure, Criminal Law and Procedure, Torts, and Domestic Relations were opened; three of those

subjects having been previously studied in the middle year, and the fourth subject having been introduced into the school for the first time. Twenty-seven students took one or more courses in public law as a part of their work for the degree of LL.B. In addition thereto, nineteen students took one or more courses in public law as extras. Considering that this is the first year in which candidates for the degree of LL.B. have been allowed to combine private and public law, this must be regarded as a gratifying showing. Regarding these subjects, however, simply from the practitioner's point of view, it is to be hoped that a larger number of men will, in the future, avail themselves of an opportunity of studying public law, which it is believed is offered by no other school in the country.

Three hundred and eighteen men registered in the school during the year just closed, divided into classes as follows :

Senior Class.....	64
Middle Class.....	106
Junior Class.....	82
Special Students.....	52
Seniors in Arts taking one or more courses in law for the degree of A.B.....	14

The effect of the system of concurrent study upon attendance is shown in two ways. While it decreases the number of men entering after the beginning of the term, it decreases likewise the number of withdrawals during the year. Thus during the year 1890-91 forty-seven men entered after Nov. 1st and before Feb. 1st, or 7.69 per cent. of the whole number in the school, and eighteen after Feb. 1st, or 2.88 per cent. of the whole number in the school, while during the year 1891-92 there were only eight entries after Nov. 1st and before Feb. 1st, or 2.52 per cent. of the whole number in the school, and after Feb. 1st only two entries, or 0.65 per cent. of the whole number in the school. During the year 1890-91 ninety-nine men withdrew from the School, or 15.88 per cent. of the whole number. During the year 1891-92 only twenty-six men withdrew from the school, or 8.16 per cent. of the whole number.

## SCHOOL OF LAW.

SENIOR CLASS.		MIDDLE CLASS.		JUNIOR CLASS.		SPECIAL STUDENTS.		SENIORS IN SCHOOL OF ARTS TAKING COURSES IN LAW.		JUNIORS AND SPECIALS, STUDYING JUNIOR SUBJECTS.			JUNIORS, INCLUDING SPECIALS AND SENIORS IN ARTS.			JUNIORS AND SENIORS IN ARTS.																												
Number of Students.	College Graduates.	Number of Students.	College Graduates.	Number of Students.	College Graduates.	Percentage of College Graduates.	Percentage of College Graduates.	Number of Students.	College Graduates.	Percentage of College Graduates.	Students, School of Arts, taking Courses in Law.	Juniors and Specials Studying Junior Subjects.	College Graduates.	Percentage.	Juniors, Including Specials and Seniors in Arts.	College Graduates.	Percentage.	Juniors and Seniors in Arts.	College Graduates.	Percentage.																								
64	21	32.83	106	37	34.90	82	41	50	9	17.60	14	120	41	34.16	134	41	30.66	95	41	43.15																								
TOTAL NUMBER IN SCHOOL INCLUDING SENIORS IN ARTS.			TOTAL NUMBER IN SCHOOL EXCLUSIVE OF SENIORS IN ARTS.			TOTAL NUMBER IN SCHOOL INCLUDING SENIORS IN ARTS.			TOTAL NUMBER IN SCHOOL EXCLUSIVE OF SENIORS IN ARTS.			TOTAL NUMBER IN SCHOOL INCLUDING SENIORS IN ARTS.			TOTAL NUMBER OF COLLEGE GRADUATES IN SCHOOL.																													
Total Number in School, inclusive of Seniors in Arts.			Total Number in School, inclusive of Seniors in Arts.			Total Number in School, exclusive of Seniors in Arts.			Total Number in School, exclusive of Seniors in Arts.			Number of Columbia College Graduates.			Percentage.			Number of Columbia College Graduates.			Percentage of Columbia College Graduates.			Number of Graduates of other Colleges.			Percentage of Graduates of other Colleges.																	
College Graduates.			College Graduates.			Percentage.			Percentage of Graduates of other Colleges.			Percentage of Graduates of other Colleges.			Percentage.			Percentage.			Percentage.			Percentage.			Percentage.																	
318			108			304			108			35.53			318			17			5.35			91			28.51			304			17			15.74			91			84.26		

The preceding table shows the percentage of college graduates in each class and in the school taken as a whole, and the percentage of college graduates furnished by the School of Arts of Columbia College.

The arrangement of the hours of attendance in the senior year, differing from the arrangement of hours in the junior and middle years, renders it possible for members of the senior class to spend a part of the day in a law office. Yet, if what is worth doing, is worth doing well, the school is to be congratulated on the fact that the number of seniors in law who give their time exclusively to the work of the school is increasing. Thus during the year just closed about one third of the class have given the entire day to the work of the school, while during the year 1890-91 about one seventh only of the class devoted their time exclusively to the Law School.

A course on the New York Code of Civil Procedure is now given during the middle year, and while being continued in the middle year will, at the beginning of the year 1892-93, be extended into the senior or third year. In addition thereto there will be offered to seniors, during the year 1892-93, a course on doctrines peculiar to New York law, in which will be pointed out to the student already familiar with the general principles of law, the particulars in which New York law differs from the common law of the United States and England.

One can readily understand the impatience of a young man to begin his life-work, but at the same time it is to be regretted that the work of the third year, in which are taught so many subjects of paramount importance, of which one is not likely to obtain a systematic and scientific knowledge after he leaves the school, is to receive only divided attention. The information which one who is well grounded in the principles of law receives in an office does not extend far beyond a few mechanical and clerical details of practice which are quickly mastered.

Until the present year the examinations were oral and were held only at the close of the middle and senior years. The

examinations are now conducted in writing and are held for each class at the end of the year, the student being required as a condition of being advanced with his class, to pass in all subjects taken by him for the degree.

The following is the result of the examinations held at the close of the present year :

Of the sixty-one members of the senior class who presented themselves for examination, twenty failed in one or more subjects, and therefore failed to receive the degree.

Of the eighty-five members of the middle class who presented themselves for examination, fifteen failed in one or more subjects.

Of the seventy-six juniors who presented themselves for examination, six failed in one or more subjects.

Of the thirty-nine special students, who presented themselves for examination, eighteen failed in one or more subjects.

Of the fourteen seniors in the School of Arts who presented themselves for examination, five failed in one or more subjects.

Those who failed to pass these examinations will have an opportunity to be re-examined in September next, when examinations are held for admission to advanced standing. The members of the present senior class who failed to obtain their degrees will also have an opportunity at that time of being re-examined. After the academic year 1892-93 seniors in law failing to obtain their degrees will not be allowed to present themselves for examination until the next annual examination. Since it is not necessary to have a degree in order to be admitted to the Bar, the hardship involved in this rule is more apparent than real. In fact a number of the present senior class in law who failed to obtain the degree were, before presenting themselves for examination for the degree, admitted to the Bar.

While many of the best examinations were passed by men who had not had the advantage of a college education yet the necessity for a good general education as a condition



of entering upon the study of law is evident from the fact that of the men who failed in their examinations comparatively few were college graduates.

The Regents of the University of the State of New York recognizing the necessity of such an education, at their meeting held June 8, 1892, passed the following resolution to go into effect in 1893:

"Resolved: That no candidate shall receive the university degree of LL.B., unless, in addition to passing all required examinations in law, he has filed satisfactory evidence that, after having completed a general education equivalent to that required by the Regents' academic diploma, he has taken to the satisfaction of the faculty not less than a two-years' course in one or more law schools registered by the Regents as maintaining a satisfactory standard."

I would respectfully recommend that a similar resolution be adopted to apply to students entering the Law School at the beginning of the academic year 1893-94.

Dr. John Ordronaux, James L. Bishop, Esq., and George Richards, Esq., have, during the year just closed, delivered satisfactory courses of lectures upon the subjects of Medical Jurisprudence, the New York Code of Civil Procedure, and Insurance, respectively.

The students of the school are to enjoy the privilege of studying under Dr. Ordronaux and Mr. Richards during the coming year. As Mr. Bishop's course of lectures was intended only to obviate an unavoidable conflict brought about by the change in the curriculum, his course of lectures will not be given next year. That I cannot speak too highly of Mr. Bishop's work is evidenced by the high appreciation of him shown by the members of his class.

The prize tutors have satisfactorily discharged their duties.

The accompanying tables show the parentage of the college degrees, and the state and countries represented in the school.

In conclusion I cannot refrain from expressing the great satisfaction which the Law Faculty feel at the earnestness and diligence which have, in most cases, characterized the work of the students.

Respectfully,

WILLIAM A. KEENER,

*Dean.*

June 30, 1892.

## PARENTAGE OF DEGREES.

Allegheny College, Pa.....	1
Amherst College, Mass.....	6
Antioch College, Ohio.....	1
Berlin University, Germany.....	1
Bowdoin College, Me.....	1
Brown University, R. I.....	1
Bucknell University, Pa.....	1
College of the City of New York.....	14
College of New Jersey.....	2
Columbia College, New York City.....	17
Cornell University, Ithaca, N. Y.....	1
Detroit College.....	1
Freiburg University, Baden, Germany.....	1
Geneva College, Pa.....	1
Georgetown College, Washington, D. C.....	1
Hamilton College, N. Y.....	1
Harvard University, Mass.....	19
Illinois College.....	1
Johns Hopkins University, Md.....	1
Manhattan College, New York City.....	2
Marietta College, Ohio.....	1
Oberlin College, Ohio.....	1
Ohio Wesleyan University.....	1
Olivet College, Mich.....	1
Polytechnic Institute, Brooklyn.....	1
Rutgers College, N. J.....	1
University of Rochester, N. Y.....	2
State University of Colorado.....	1
Stevens Institute of Technology, N. J.....	1
St. Francis Xavier's College, N. Y.....	1
St. John's College, Md.....	1
Syracuse University.....	1
Trinity College, Ct.....	2
University of Indiana.....	1
University of the South, Tenn.....	1
Washington and Jefferson College.....	1
Williams College, Mass.....	3
Yale University, Ct.....	14

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 109

Deduct for graduates having degrees from more  
than one college.....

2

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 107

## States and countries represented in the school :

California.....	1
China .....	1
Colorado .....	3
Connecticut.....	2
District of Columbia.....	1
Germany .....	1
Illinois.....	3
Indiana.....	2
Indian Territory.....	1
Iowa.. ..	2
Kansas.....	1
Kentucky.....	2
Maine.....	1
Maryland.....	1
Massachusetts.....	3
Michigan.....	1
Minnesota.....	2
Missouri.....	1
Nebraska.....	1
New Hampshire.....	1
New Jersey.....	35
New York.....	231
North Carolina.....	1
Ohio.....	4
Pennsylvania .....	8
Rhode Island.....	1
Tennessee.....	2
Texas.....	1
Vermont.....	1
Washington.....	1
Wisconsin.....	2
<hr/>	
Total,.....	318

## SCHOOL OF MEDICINE.

### COLLEGE OF PHYSICIANS AND SURGEONS.

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#### REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1892.

*To the President of Columbia College  
in the City of New York:*

SIR:

I have the honor to submit the following report of the condition of the Medical School, and the work done during the past year.

There have been 570 students in the school, in attendance upon the lectures and working in the various laboratories—an increase of 36 over the previous year.

Of the 570 students in the school, 239 had college degrees. Of these 131 had the degree of Bachelor of Arts; 36, the degree of Bachelor of Science; 20, that of Doctor of Medicine; 20 that of Bachelor of Philosophy; 6, that of Master of Arts; 3, those of Master of Arts and Doctor of Medicine; 2, those of Bachelor of Philosophy and Doctor of Medicine; 2, that of Mining Engineer; 1, those of Bachelor of Science and Master of Arts; 1, those of Civil Engineer and Mining Engineer; 1, that of Bachelor of Laws; 4, those of Bachelor of Arts and Bachelor of Philosophy; 11, that of Graduate in Pharmacy; 1, that of Bachelor of Dentistry.

The following table gives the geographical distribution of the students:

Alabama.....	1
Brooklyn.....	39
California.....	5

Colorado.....	I	
Connecticut.....	26	
Delaware.....	I	
District of Columbia.....	5	
Georgia.....	5	
Illinois.....	3	
Indiana.....	2	
Iowa.....	3	
Kentucky.....	3	
Maine.....	3	
Maryland.....	2	
Massachusetts.....	21	
Minnesota.....	I	
Mississippi.....	I	
Missouri.....	2	
New York City.....	233	
New York State.....	76	
Nebraska.....	I	
New Hampshire.....	4	
New Jersey.....	55	
North Carolina.....	4	
Ohio.....	11	
Oregon.....	2	
Pennsylvania.....	13	
Rhode Island.....	10	
Tennessee.....	5	
Texas.....	3	
Utah.....	I	
Virginia.....	3	
West Virginia.....	2	
Wisconsin.....	6	
Wyoming.....	I	
		— 554
Foreign countries:		
Africa.....	I	
Bermuda.....	I	
Bohemia.....	2	
Canada.....	I	
Central America.....	3	
Cuba.....	I	
France.....	I	
India.....	I	
Italy.....	I	
New Brunswick.....	2	
Spain.....	I	
Syria.....	I	
		— 16
Total.....		570

The work of the anatomical department may properly be considered under the two general heads of instruction, and research and museum work.

The instruction in anatomy has been given by lectures, of which three have been delivered each week by the professor, by demonstrations and section-teaching, and work in the dissecting room. The course is arranged to extend over two years, and to cover the ground not included in the anatomical demonstrations to sections; the latter dealing with subjects which cannot properly be introduced into the general lecture and demonstrated to the entire class at once. The system of teaching by demonstrations and by section-teaching, introduced by Professor Huntington in 1889, has been continued, and has constituted a most important and satisfactory part of the anatomical course. This method brings the student in direct contact with the instructor and with the subject of the lesson, which is impossible in dealing with a large class at one time. The ground covered during the past session by these demonstrations is as follows:

To second-year students—5 hours a week throughout the session, given by Dr. Gallaudet, the demonstrator of anatomy, and 36 special demonstrations given by the professor of anatomy.

To first-year students—6 hours a week throughout the session, demonstrations given by Dr. Franklyn Dexter, assistant demonstrator of anatomy, and 30 special demonstrations by Dr. R. A. Sands, assistant demonstrator of anatomy.

The attendance of the students at these demonstrations has been most regular.

The work of the class in the practical anatomy course in the dissecting room has been remarkably thorough and satisfactory, due largely to the increase in the number of demonstrators, made possible by our union with Columbia. Prior to this, the practical instruction in anatomy was given by the demonstrator and two assistants, while during the last session the teaching in the dissecting room was done by the demonstrator and six assistants. This large

staff has greatly facilitated the enlarged plan of practical anatomical instruction, and the dissecting room has been open the entire day and evening.

The work of the class has been carefully arranged and systematized in such a manner as to insure to each student a thorough practical course in anatomy.

The arrangements made during the past year for obtaining comparative anatomical and embryological material have proved very satisfactory. The department is now constantly receiving large accessions of very valuable material from many different sources.

During the past session, the energies of the department have been chiefly directed towards the development of the Anatomical Museum, and the collections for study and demonstration, as the necessity for a proper equipment for purposes of instruction has become more and more apparent. The constant and large accessions have prevented, up to this time, a complete cataloguing of the material now in hand. It is hoped that progress in this direction will be made during the present summer. A number of researches have been instituted during the session, some of which are now nearly concluded. The research work has been crippled by the lack of proper laboratory facilities, but the new laboratory, now in process of erection, will enable this work to be prosecuted as never before.

The appointment to one of the Alumni Association fellowships of Dr. Brockway, assistant demonstrator of anatomy, is of great value to anatomical research work; with the facilities afforded by the new laboratory, and the abundant valuable material available, the opportunities for good original work will be unsurpassed.

The efficiency of the Department of Physiology, has been very greatly increased by the enlargement of its staff, provided for by the appropriation of 1891-92. The appointment of an experienced physiologist as demonstrator, to devote his entire time to his duties in the department, has made it possible to enrich the teaching of physiology by a new series of demonstrations in addition to those of the



lecture room. At these special demonstrations the students have been divided into sections, and have been shown a great number of the fundamental experiments.

The actual apparatus of research has been employed to a degree impossible in the lecture room, and insight has thus been given not merely into results, but into methods. It is hoped that this will stimulate a desire, on the part of competent men, to take part in the work of investigation as well as to share its fruits.

In the direction of research which is treated by the professor and demonstrator as no less important than teaching, promising fields have been entered upon by them, and several graduates of the Medical School have availed themselves of the advantages of the laboratory for the study, by physiological methods, of problems connected with clinical medicine. A very competent mechanic was engaged during the session to work exclusively in and for the physiological laboratory. The opportunity of utilizing fully the steam lathe and other appliances already in our possession has been of great service. The power to repair or modify at once, under the eyes of experts, existing apparatus, and to make new pieces of excellent quality without delay, leads to a celerity and flexibility of method which cannot be too highly prized.

The mechanic has also learned to be a capable assistant at experiments both of demonstration and research.

In the Department of Pathology three fairly distinct themes are pursued—Normal Histology, Bacteriology, and Pathology, including Pathological Anatomy and Histology and General Pathology.

In the pursuit of each of these themes the double purpose of instruction and research is held in view.

Practical *Normal Histology* has been taught by Dr. George C. Freeborn, assisted by Drs. Ira T. Van Gieson and John B. Lynch, to 188 students four times per week in two-hour sessions.

This class has worked in two sections, each occupying about half the college year.

*Bacteriology* is not taught as a separate theme to our undergraduate medical students, but is embraced in the class instruction in pathology. The resources of the bacterial laboratory, while thus contributing to the instruction in pathology, are largely directed to special pursuits in practical bacteriology and to the work of research.

This laboratory is in immediate charge of Dr. T. M. Cheesman, who joins the instructing force in pathology while the bacteria are under consideration in the class.

Five advanced workers have received special instruction in bacteriology during the year.

Large accessions have been made to the collection, and the work of describing and cataloguing certain groups of micro-organisms has been put under way.

A new department, concerning itself with the chemical products of bacterial life, has been organized this year, and has for the present been placed in charge of Dr. Alex. Lambert, incumbent of the Alumni Association fellowship in pathology for the ensuing two years.

The practical instruction in pathology has been given by Dr. T. M. Prudden, Director of the Department of Pathology, assisted by Drs. Eugene Hodenpyl and John S. Ely.

The instruction is in two-hour lessons, and has been given to 139 undergraduates and other students in two classes, each extending—three times per week—over about half the session.

Special instruction in pathology has been given to five men in advanced themes.

Altogether we have given practical laboratory instruction in the Department of Pathology to 337 men.

A large amount of routine work has been done in this as in former years, by such of the laboratory instructors as are pathologists to various hospitals in New York—Dr. Freeborn at the Woman's Hospital, Dr. Van Gieson at Charity, Dr. Hodenpyl at the Roosevelt and St. Francis, and Dr. Ely at Bellevue. This work consists in examining and reporting upon pathological specimens, which in some cases form the basis of special studies and the means

of growth of our permanent collection for purposes of instruction.

The Pathological Museum in charge of Dr. John S. Ely, has received material accessions.

The results of special research work accomplished in this department by the instructors and others during the past year, so far as it has been published or is ready for publication, are largely comprised in the following papers:

On the Etiology of Typhus Fever, by *Drs. T. Cheesman* and *J. W. Brannan*.

A New Material for Histological Models, by *Dr. G. C. Freeborn*.

Traumatic Myelitis: Lesions Induced by Strong Electrical Currents; A Study of Artefacts of the Nervous System, by *Dr. Ira T. Van Gieson*.

On the Effects of Certain Mechanical Influences on Bacteria, by *Dr. S. J. Melzer*.

On Diphtheria and Other Pseudo-membranous Inflammations (Alumni Prize Essay), by *Dr. W. H. Park*.

On Experimental Pneumonitis, etc.; The Element of Contagion in Tuberculosis; Ice and Its Structure, by *Dr. T. M. Prudden*.

Such of these papers as are available are to be brought together in the form of collection of reprints of studies from the Pathological Laboratory.

In the Department of Obstetrics and Gynecology, in addition to the usual didactic lectures in the college, clinical instruction has been regularly given at the Sloane Maternity and in the Roosevelt Hospital. In the former institution to all the students of the third year, in sections of six; each section has been on duty seven days, during which time the students have occupied rooms in the dormitory on the college grounds, which is connected by electric call with the hospital, thus enabling them to respond quickly by day or night. From June, 1891, to June, 1892, 658 confinements have occurred in the hospital, with only two deaths. The ambulances of the New York, Roosevelt, and Presbyterian hospitals have brought nearly all their emergency cases to

us. During the year six beds have been added making a total of forty-five now in use. Privileges formerly extended to students of the College of Physicians and Surgeons have been increased whenever it could be done without sacrificing the welfare of the patients. A summer course in practical obstetrics, for physicians and advanced students, has been introduced, which has proved most useful.

The hospital has furnished much valuable material for demonstration, in connection with the didactic lectures in the college, to the students of the second and third year.

Practical instruction has been given in the Sloane Hospital by the resident physician, who is the instructor in obstetrics, to 146 students, distributed over a period of twenty-six weeks. These students have received instruction in the examination of 1,334 cases—*i. e.*, an average of nine cases for each student. Each one has also seen, on an average, eleven labors, and in turn made the morning visit with the staff of the hospital, in order to observe the treatment of puerperal patients and their infants. This teaching, specially given to each student, has consumed about five hours daily, in addition to the instruction given in the labor-room by the resident. The emergency service has been large, nearly fifty per cent. of all cases being already in labor when admitted.

The assistant resident physicians have each served three months, two being on duty at a time. They are selected from graduates of the College of Physicians and Surgeons, preference being given to those who have already had a general hospital experience.

The course in obstetric nursing has been extended from two months to three. The number of pupil-nurses has been increased from six to eight. Nurses are now regularly received from the training schools of the New York Hospital and St. Luke's Hospital, and instructed by the principal of the Sloane Maternity school in every department of obstetric nursing, supplemented by a weekly lecture from the resident physician. Thirty-two nurses have been trained here during the past year.

The courses of lectures on chemistry, materia medica, surgery, and practice of medicine in the college, have been continued without interruption during the year, and the work of the students in all the departments has been of a highly satisfactory character.

Many valuable additions have been made to the anatomical and pathological museums.

The Vanderbilt Clinic, from which our supply of patients for the purposes of section-teaching is drawn, has wonderfully fulfilled its mission. Over one hundred thousand persons have been gratuitously treated there during the past twelve months, and our students have enjoyed almost unlimited facilities for studying disease in the forms met with in a dispensary but not seen in a hospital. Instruction has been given daily in all the special departments of medicine, in the clinic building, to sections of students.

In conclusion I would say that the first year of the vital union of the College of Physicians and Surgeons with Columbia has been marked by a progress in every department, and by work of a higher grade than ever before in the history of the College.

Respectfully,

JAMES W. McLANE,

*Dean.*

June 30, 1892.

# SCHOOL OF MINES.

## REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1892.

*To the President of Columbia College  
in the City of New York :*

SIR:

I have the honor to present the following report of the twenty-eighth annual session of the School of Mines, just closed.

During the year three hundred and fifty-one (351) students have been in attendance on the exercises of the School of Mines, distributed as follows :

### *Undergraduate Courses.*

Fourth Class .....	38
Third " .....	38
Second " .....	65
First " .....	121
	<hr/> 262

### *Post-Graduate Courses.*

#### Electrical Engineering :

Second Class .....	6
First " .....	3
Partial ....	17
	<hr/> 26

#### Sanitary Engineering :

Partial .....	1
Special .....	14
	<hr/> 41

*University Courses.*

For degree of Master of Arts.....	10	
For degree of Doctor of Philosophy.....	4	
Special.....	1	
	—	15
Seniors from the School of Arts.....	25	
Specials from the School of Arts.....	4	
From Collegiate Course for Women.....	1	
	—	30
		348
Fellows.....	7	
		—
		355
Deduct for repetitions.....	4	
		—
Grand total.....	351	

The undergraduate students have pursued the different courses of the School of Mines as follows :

	First Class.	Second Class.	Third Class.	Fourth Class.	Total.
Mining Engineering.....	26	12	6	9	53
Civil Engineering.....	50	20	16	16	102
Metallurgy.....	3	1	1	—	5
Geology and Palæontology....	1	—	1	1	3
Anal. and App. Chemistry....	5	11	4	6	26
Architecture.....	36	20	10	6	72
Sanitary Engineering.....	—	1	—	—	1
	—	—	—	—	—
Total.....	121	65	38	38	262

Of the above-mentioned students, the following number received free tuition :

First Class.....	18
Second " .....	13
Third " .....	7
Fourth " .....	9
Post-Graduates.....	7
	—
	54

The following is a complete list of the degrees awarded in the several courses :

*Undergraduate Courses.*

In Mining Engineering.....	9	
Civil Engineering.....	18	
Geology and Palæontology.....	1	
Analytical and Applied Chemistry.....	5	
Architecture.....	5	
		<hr/> 38

*Post-Graduate Courses.*

Electrical Engineering.....	7	
		<hr/>
Total.....		45

During the year one student was dropped from the school for failure to keep up in his studies, and several others withdrew voluntarily for various reasons.

Instruction has been given in the different departments as follows :

## DEPARTMENT OF MATHEMATICS.

J. Howard Van Amringe, A.M., Ph.D., L.H.D., Professor of Mathematics.

Jasper T. Goodwin, A.M., LL.B., Adjunct Professor of Mathematics.

Thomas S. Fiske, A.M., Ph.D., Instructor of Mathematics.

James Maclay, C.E., Tutor in Mathematics.

Gustavus T. Donnell, A.M., Assistant in Mathematics.

Lewis B. Carll, A.M., Assistant in Mathematics.

*Mathematics* for the students of the first class in all courses was taught by Adj. Prof. Goodwin throughout the year. The students attended four exercises a week, three in sections of half the class, and one as a whole class. The subjects taught were trigonometry, plane, analytical, and spherical; mensuration of surfaces and volumes; that part of algebra not required for admission; and the first chapters of analytical geometry.

The students of the second class, in all courses except those of geology and palæontology and analytical and



applied chemistry, were taught by Prof. Van Amringe throughout the year, four exercises a week. The subjects taught were analytical geometry and differential and integral calculus.

Elective courses in analytical geometry and in differential and integral calculus were also given by Prof. Van Amringe to members of the junior and senior classes of the School of Arts.

A course of instruction to university students was given by Prof. Van Amringe to a class of three students in differential equations. In this course special topics were assigned to each student for full investigation, and for comment by him and criticism by other members of the class.

A course of instruction to university students was given by Dr. Fiske to a class of three students once a week throughout the year on the theory of equations and modern higher algebra, by text-book supplemented by lectures. Dr. Fiske also gave to a class of university students, two in number, three times a week two lectures and one conference during the second term, a course on the theory of functions, with special reference to elliptic functions. The course was based on the treatise of Briot and Bouquet and on the courses of Hermite and Weierstrass.

A course of instruction to university students was given by Mr. Maclay to a class of three students, twice a week throughout the year, in higher differential and integral calculus. Mr. Maclay also gave to a class of university students, four in number, twice a week during the first term, a course in advanced solid geometry, and twice a week during the second term a course in higher plane curves. Selected text-books were used in both courses and were supplemented by lectures. Each student was required to lecture upon an assigned topic at least once and to anticipate the criticisms of his class and his instructor.

Mr. Carll gave, twice a week during the second term, a series of lectures upon the calculus of variations, using his own treatise on that subject as a basis.

## DEPARTMENT OF MECHANICS.

William G. Peck, Ph.D., LL.D., Professor of Mechanics.

John K. Rees, A.M., E.M., Professor of Astronomy.

Michael I. Pupin, Ph.D., Instructor in Mathematical Physics  
in Electrical Engineering.

J. C. Pfister, A.M., Tutor in Mechanics.

*Mechanics* was taught by Prof. Peck to the students of the third class in the courses of mining engineering, civil engineering, and metallurgy, throughout the first term, in three lectures and recitations a week. After the death of Prof. Peck the work was carried on by Prof. Rees. The students in architecture of the third class attended a course of two hours a week under Mr. Pfister on text-book work, and one hour of lectures by Prof. Peck or Prof. Rees in experimental mechanics. Six members of the third class and six graduates attended under Prof. Peck and subsequently under Dr. Pupin an elective course of one hour a week in higher mechanics. Mr. Pfister assisted at all the lectures in experimental mechanics.

## DEPARTMENT OF PHYSICS.

Ogden N. Rood, A.M., Professor of Physics.

Holbrook Cushman, A.B., Instructor in Physics.

Reginald Gordon, A.B., Tutor in Physics.

Herschel C. Parker, Ph.B., Assistant in Physics.

Asa S. Iglehart, A.B., Assistant in Physics.

*Heat* was taught by Mr. Gordon to the students of the first class in all courses, in three sections, in two exercises a week for each section, during the first session.

*Sound and Light* were taught by Prof. Rood to the students of the first class in all courses, in two sections, in one exercise a week throughout the year for each section.

*Electricity* was taught by Mr. Gordon to the students of the first class in all courses, in three sections, in two exercises a week for each section, during the second session.

*Electricity* was taught by Prof. Rood to the students of

the third class in all courses except architecture, in two lectures a week during the first session.

*Physical Measurements* were taught in the laboratory by Mr. Cushman to the members of the third class in all courses except metallurgy and architecture, four hours a week for six weeks during the first term, and two hours a week during the second session.

*Spectroscopy* was taught by Mr. Gordon to the students of the third class in the course of analytical and applied chemistry, two hours a week during the second term.

Special courses in laboratory practice have been pursued by four post-graduate students under the instruction of Mr. Cushman. In addition to these, under the same instruction, with the assistance of Prof. Rood, two post-graduates have conducted original electrical investigations, a third has made a study of polarized light, and a fourth has conducted a research on the connection between the coefficient of expansion of glass and its composition.

#### DEPARTMENT OF CHEMISTRY.

Charles F. Chandler, Ph.D., M.D., LL.D., Professor of Chemistry.

Pierre de P. Ricketts, E.M., Ph.D., Professor of Assaying.

Elwyn Waller, A.M., E.M., Ph.D., Professor of Analytical Chemistry.

Charles E. Colby, E.M., C.E., Adjunct Professor of Organic Chemistry.

James S. C. Wells, Ph.D., Instructor in Qualitative Analysis.

Ferdinand G. Wiechmann, Ph.D., Instructor in Chemical Philosophy and Chemical Physics.

Louis H. Laudy, Ph.D., Tutor in General Chemistry.

Henry C. Bowen, Tutor in Quantitative Analysis.

Hermann T. Vulté, Ph.D., Assistant in Quantitative Analysis.

Alexander R. Cushman, Ph.D., Assistant in Qualitative Analysis.

Delancey W. Ward, Ph.B., Assistant in Organic Chemistry.

Edmund H. Miller, Ph.B., Assistant in Assaying.  
Richard C. Boyd, Ph.B., Honorary Assistant in Assaying.  
Charles E. Pellew, E.M., Honorary Assistant in Applied Chemistry.

*General Inorganic Chemistry* was taught during the entire year to the students of the first class in all courses, in two lectures a week, illustrated by experiment, by Prof. Chandler, and one recitation by Mr. Ward. The class was divided into four sections, to make the recitations more effective.

*Chemical Physics* was taught by Dr. Wiechmann during the second session to the students of the first class in the course of analytical and applied chemistry, in two exercises a week.

*Chemical Philosophy* was taught by Dr. Wiechmann during the entire year to the students of the second class in the course of analytical and applied chemistry, in four exercises a week.

*Applied Chemistry*, in its relations to general industries, and those important to all, was taught to the second class in all courses. There were two illustrated lectures a week by Prof. Chandler, and the class was divided into three sections for a weekly recitation upon the lectures held by Dr. Laudy.

*Applied Chemistry*, in its special relations to the chemical arts and industries, was taught to the third and fourth classes in the course of analytical and applied chemistry, in three lectures by Prof. Chandler, and one recitation a week by Mr. Pellew, throughout the year.

*University Work.* Special instruction was given by Dr. Wiechmann to a small class in technical sugar analysis, consisting of one lecture a week, with laboratory practice. Dr. Wiechmann has also had the supervision of the special studies of a candidate for the degree of Master of Arts who is investigating the nature of the organic compounds, not sugar, which occur in saccharine juices.

*Qualitative Analysis* has been taught throughout the year to the students of the first class in the courses of mining engineering, metallurgy, geology and palæontology, and

analytical and applied chemistry, in two lectures a week by Dr. Wells, and the class was divided into two sections, each of which attended two recitations a week held by Dr. Wells and Dr. Cushman. In addition to class-room instruction, the students devoted half their afternoons to laboratory practice.

*Quantitative Analysis* was taught by lectures by Prof. Waller, recitations by Mr. Bowen, and laboratory practice under Prof. Waller, Mr. Bowen, and Dr. Vulté. The students of the second class, in the course of analytical and applied chemistry, have attended two lectures by Prof. Waller and two recitations a week by Mr. Bowen throughout the year. The students of the second class in the course of metallurgy attended one lecture by Prof. Waller, and one recitation a week by Mr. Bowen throughout the year. The students of the third class, in the course of analytical and applied chemistry, attended two lectures by Prof. Waller and two recitations a week by Mr. Bowen and Dr. Vulté during the second session. The students of the fourth class, in the courses of mining engineering and of geology, attended one lecture a week by Prof. Waller and one recitation a week by Mr. Bowen during the second session. All the students mentioned above as pursuing quantitative analysis devoted to laboratory practice all the time that could be spared from their other studies, the officers attending on Saturdays for their accommodation.

*Assaying* was taught to the students of the third class in the courses of mining engineering, metallurgy, geology and palæontology, and analytical and applied chemistry, in two lectures by Prof. Ricketts, and one recitation a week by Mr. Miller for one session, with laboratory practice in the afternoons and on Saturdays, under the direction of Prof. Ricketts, Mr. Miller, and Mr. Boyd.

*Ore Testing* was taught by Prof. Ricketts to the students of the fourth class in the courses of mining engineering, metallurgy, and geology and palæontology, one hour a week, with laboratory practice, during the second session.

*Organic Chemistry* was taught to the students of the fourth

class in the course of analytical and applied chemistry during the entire year. There were four lectures by Adj. Prof. Colby and two recitations a week by Mr. Ward, with laboratory practice.

#### BIOLOGY AND HYGIENE.

John S. Billings, M.D., Lecturer in Hygiene and Sanitary Science.

Alexis A. Julien, A.M., Ph.D., Instructor in Micro-Biology and Microscopy.

*Biology, Hygiene, and Sanitary Science.* A course of twenty lectures was given by Dr. Billings to the students of the second class in all courses, one half in each session.

*Microscopy.* Two exercises a week in the laboratory of two hours each, under the direction of Dr. Julien, for the students of the second class in the courses of geology and palæontology and of analytical and applied chemistry, throughout the year.

*Micro-Biology and Bacteriology.* Two exercises a week in the laboratory of two hours each, under the direction of Dr. Julien, for the students of the third class, in the course of analytical and applied chemistry.

#### DEPARTMENT OF BOTANY.

(*Temporarily including Zoölogy.*)

Nathaniel L. Britton, E.M., Ph.D., Professor of Botany.

Thomas Morong, Ph.D., Curator of the Herbarium.

*Botany* was taught by Prof. Britton to the students of the first class, except those in the course in architecture, in one lecture a week, throughout the entire year. To the students in the course in geology and palæontology, in the second and third classes, botany was taught in two exercises a week throughout the year, and to those in the fourth class in one lecture a week.

*Zoölogy* was taught by Prof. Britton to all the students of the second year except those in the course of architecture, in one lecture a week. Practical zoölogy was taught to the

second- and third-class students in the course of geology and palæontology, one hour a week throughout the year.

DEPARTMENT OF MINERALOGY AND METALLURGY.

Thomas Egleston, E.M., Ph.D., LL.D., Professor of Mineralogy and Metallurgy.

Alfred J. Moses, E.M. Ph.D., Adjunct Professor of Mineralogy.

Joseph Struthers, Ph.B., Tutor in Metallurgy.

Lea McL. Luquer, C.E., Tutor in Mineralogy.

Gustav J. Volckening, Jr., Met.E., E.M., Assistant in Metallurgy.

Herbert P. Whitlock, C.E., Assistant in Mineralogy.

*Blowpipe Analysis* was taught by Adj.-Prof. Moses, Mr. Luquer, and Mr. Whitlock during the first session to the students of the first class in the courses of mining engineering, metallurgy, geology and palæontology, and analytical and applied chemistry, in two exercises a week, besides afternoon practice.

*Crystallography* was taught by Adj.-Prof. Moses and Mr. Luquer during the second session to the students of the first class in the courses of mining engineering, metallurgy, geology and palæontology, and analytical and applied chemistry, in two exercises a week.

*Mathematical Crystallography* was taught by Adj.-Prof. Moses throughout the year to students of the third class in the course of geology, in one exercise a week, besides afternoon practice.

*Mineralogy* was taught by Adj.-Prof. Moses, Mr. Luquer, and Mr. Whitlock to the students of the second class in the courses of mining engineering, metallurgy, geology and palæontology, and analytical and applied chemistry, during the entire year, in two exercises a week, besides afternoon practice.

*Mineralogy*, including *Blowpipe Analysis* and *Crystallography*, was taught by Adj.-Prof. Moses, Mr. Luquer, and Mr. Whitlock during the entire year to the students of the

second class in the course of civil engineering, in two exercises a week, besides afternoon practice.

*Mineralogy* was taught by Adj.-Prof. Moses during part of the first term to students of the third class in the course of architecture in one exercise a week.

*Optical Mineralogy* was taught by Mr. Luquer throughout the year to students of the third class in the course of geology, in one exercise a week, besides afternoon practice.

*Metallurgy* was taught by Prof. Egleston and Mr. Struthers during the entire year to the students of the third class in the courses of mining and civil engineering, metallurgy, geology and palæontology, and analytical and applied chemistry, in four exercises a week during the year. In addition to this the students of the third year, in the course of metallurgy, attended one special exercise a week during the year.

*Metallurgy* was also taught by Prof. Egleston and Mr. Struthers during the entire year to the students of the fourth class in the courses of mining engineering, metallurgy, geology and palæontology, and analytical and applied chemistry, in four exercises a week during the year. In addition to this the students of the fourth year in the course of metallurgy attended one special exercise a week throughout the year.

#### DEPARTMENT OF GEOLOGY AND PALÆONTOLOGY.

John S. Newberry, M.D., LL.D., Professor of Geology and Palæontology.

James F. Kemp, A.B., E.M., Adjunct Professor of Geology.  
Charles A. Hollick, Ph.B., Assistant in Geology.

*Geology* was taught by Adj.-Prof. Kemp to the students of the third class in all courses but architecture throughout the year. Three lectures weekly were given and conferences were held upon rocks and fossils when necessary, in which Mr. Hollick assisted.

*Economic Geology* was taught by Adj.-Prof. Kemp to students of the fourth class in the courses of mining engineering, metallurgy, geology and palæontology, and analytical and applied chemistry, three lectures a week throughout the year.



A course of one hour a week in *Geology* was given by Mr. Hollick to students in the course of architecture, and elective students from the course in Arts, from January 1st to the end of the year. The time up to January 1st was taken by Adj.-Prof. Moses in preparatory mineralogy by arrangement with the geological department.

*Lithology* was taught by Adj.-Prof. Moses and Mr. Luquer of the department of metallurgy and mineralogy, to students of the third and fourth years two hours weekly throughout the year under arrangement with the geological department. In the same subject two lectures weekly and laboratory work were given by Adj.-Prof. Kemp to fourth-year students and one graduate.

*Palæontology* was taught by Mr. Hollick two hours weekly to third-year students in the course in geology and three hours to those in the fourth year.

*Geological and Palæontological Drawing* was taught by Mr. Hollick to the students of the second, third, and fourth classes in the course of geology and palæontology, in special lessons, at convenient hours.

#### DEPARTMENT OF ASTRONOMY.

John K. Rees, A.M., E.M., Professor of Astronomy, and  
Director of the Observatory.

Harold Jacoby, A.B., Instructor in Astronomy.

Joseph T. Monell, C.E., E.E., Tutor in Astronomy.

*Geodesy and Practical Astronomy* were taught by Professor Rees and Mr. Jacoby to the students of the third class in the course of civil engineering, in two lectures a week throughout the year, and in a more advanced course to the fourth class in the course of civil engineering, in two lectures a week throughout the year.

*A Summer School in Practical Geodesy* was held by Professor Rees, assisted by Mr. Jacoby and Mr. Monell, for six weeks at the observatory, and at New London, N. H., for the students of the third class in the course of civil engineering.

*The Observatory* was used for the special study of astronomical instruments and for observations.

*Special Instruction in Practical Astronomy* was given by Professor Rees and Mr. Jacoby to a post-graduate student who is a candidate for the degree of master of arts. One hour a week was given to lectures, and many hours were spent in the observatory. Some original work was accomplished.

*Advanced Practical Astronomy* was taught by Professor Rees and Mr. Jacoby to a post-graduate student who is a candidate for the degree of doctor of philosophy. The work included original investigation which is now completed.

*Theory of Comet Orbits* was taught by Mr. Jacoby in an advanced course to a class of two graduate students.

#### DEPARTMENT OF ENGINEERING.

William P. Trowbridge, Ph.D., LL.D., Professor of Engineering.

Frederick R. Hutton, C.E., Ph.D., Professor of Mechanical Engineering,

James L. Greenleaf, C.E., Adjunct Professor in Engineering and Drawing.

Francis B. Crocker, E.M., Instructor in Electrical Engineering.

Michael I. Pupin, Ph.D., Instructor in Mathematical Physics in Electrical Engineering.

Ralph E. Mayer, C.E., Instructor in Drawing.

Ira H. Woolson, E.M., Instructor in Drawing.

E. D. Hurlbut, C.E., Assistant in Mechanical Engineering.

Hewlett Connell, C.E., Assistant in Civil Engineering.

*Mechanical Drawing* including *Descriptive Geometry* was taught by Mr. Mayer and Mr. Woolson to students of the first class in all courses except architecture, by two lectures a week, with practice in the drawing academy every afternoon during the entire year; and *Mechanical Drawing*, including *Shades, Shadows, Isometric, Perspective*, and the *Elements of Practical Machine Drawing*, was taught to the

students of the second class in all courses except analytical and applied chemistry and architecture, by two lectures a week with practice in the drawing academy in the afternoons throughout the entire year.

*Construction Drawing* was taught by Adjunct-Professor Greenleaf, assisted by Mr. Connell, on afternoons throughout the year to students of the third class in the civil engineering course, and during the second session to students of the same class in the courses of mining, engineering, and metallurgy. The work consisted of studies and sketching from various engineering structures in and about New York City, which were used as a basis for making complete working drawings.

*Graphical Statics* was taught by Adjunct-Professor Greenleaf, assisted by Mr. Connell, to the students of the third class in the courses of civil engineering, mining engineering, metallurgy, and architecture, in a course of one lecture a week throughout the year, and afternoon work in the drawing room. The latter for the students of civil engineering was interspersed with their work in *Construction Drawing*, likewise for the students of mining engineering, during the second session, while the students in the course in architecture worked in the drawing room one afternoon a week throughout the year. This being a period of transition in which the subject of *Graphical Statics* was changed from the fourth to the third year, the students in the fourth year had a similar course to the above extending only through the first session.

*Engineering Design* was taught by Adjunct-Professor Greenleaf to the students of the fourth class in the course of civil engineering, one lecture a week during the first session, two lectures a week during the second session; with practice in the drawing academy every afternoon during the second term.

The students of the fourth class in the course of architecture were taught the same subject by Adjunct-Professor Greenleaf in a special course of lectures adapted to their wants, once a week throughout the year, with one afternoon

a week, during the second term, devoted to practice in the drawing academy.

*Surveying* was taught by Adjunct-Professor Greenleaf to the students of the first class in all the courses except analytical and applied chemistry, attendance by the students in the course of architecture being, however, optional, in two lectures a week during the first session.

During the months of August and September a summer school of surveying was established at Litchfield, which was attended by the students of the first and second classes in the above-mentioned courses. This school was in charge of Professor Munroe, assisted by Adjunct-Professor Greenleaf, Mr. Mayer, Mr. Freedman, Mr. Goodwin, and Mr. White.

*Railway Surveying* was taught by Adjunct-Professor Greenleaf, assisted by Mr. Schumann, to the students of the fourth class in the courses of mining engineering, civil engineering, and metallurgy, during the first session. There were two lectures a week, with afternoon work daily, for six weeks.

*Engineering*—Roads and Pavements—was taught by Adjunct-Professor Greenleaf to the second class in the course of civil engineering, in one lecture a week during the entire year.

*Engineering*—Principles of Construction—was taught by Professor Trowbridge to the third class in all courses except geology and palæontology and analytical and applied chemistry, in two lectures a week throughout the year.

*The Dynamics of Engineering*—Heat and its Applications, Thermodynamics, Heat Engines, Hydraulic Engineering, Water Power, Hydraulic Motors, Centrifugal Pumps and Fans—was taught by Professor Trowbridge to the students of the fourth class in the courses of mining engineering, civil engineering, and metallurgy, in four lectures a week throughout the year.

*Engineering*—Sewers, Disposal of Sewage, Water Supply of Towns, River and Harbor Improvements, Canals, Heating and Ventilating Buildings, etc.—was taught by Professor

Trowbridge to the students of the fourth class in the course of civil engineering in two lectures a week throughout the year.

*Railway Engineering* was taught by Professor Hutton to the students of the fourth class in the course of civil engineering, in three lectures a week throughout the year.

*Mechanical Engineering*—Properties of Materials—was taught by Professor Hutton to the students of the third class in the courses of mining engineering, civil engineering, and metallurgy, in two lectures a week throughout the year, with laboratory practice. Students in the course of architecture attended that part of the subject relating to the testing of cements.

*Mechanical Engineering*—Engines and Boilers—was taught by Professor Hutton to the students of the fourth class in the courses of mining engineering, civil engineering, and metallurgy, in three lectures a week throughout the year, with laboratory practice in the use of steam indicators, etc.

*Mechanical Engineering*—Machinery and Mill-Work—was taught by Professor Hutton to the students of the fourth class in the courses of mining engineering, civil engineering, and metallurgy, in one lecture a week during the first session, two lectures a week during the second session.

*Mechanical Engineering*—Summer School. The students of the second class in the course of civil engineering were taken on a tour of observation by Professor Hutton to various points of engineering interest—machine-shops, steam-heating works, gas-works, mills, etc.

*Sanitary Engineering*—Drainage of Buildings—was taught by Adjunct-Professor Greenleaf to the students of the second class in the course of civil engineering, and to the students of the third class in the course of architecture, in one lecture a week throughout the year.

*Sanitary Engineering*—Warming and Ventilating—was taught by Adjunct-Professor Greenleaf to the students of the fourth class in the course of architecture, in one lecture a week throughout the year.

## POST-GRADUATE COURSE IN ELECTRICAL ENGINEERING.

*Principles of Electricity* were taught by Mr. Crocker to the students of the first year, in four lectures a week during the first session.

*The Theory of Electricity*, including the *Theory of Magnetic Circuits*, was taught by Dr. Pupin to the students of the first year, in three lectures a week during the first session.

*Electrical Measurements* were taught by Dr. Pupin to the students of the first year, in two lectures a week during the first session.

*Theoretical Electrical Engineering*—Continuous-Current Machinery—was taught by Dr. Pupin to the students of the first year, in three lectures a week during the second session.

*The Theory of Electric Currents*, and of *More Advanced Electrical Measurements*, was taught by Dr. Pupin to the students of the first year, in two lectures a week during the second session.

*Dynamo Construction and Operation* were taught by Mr. Crocker to the students of the first year, in three lectures a week during the second session.

*The Telegraph and Telephone* were taught by Mr. Crocker to the students of the first year, in two lectures a week during the second session.

*Mechanical Engineering* was taught by Professor Hutton to the students of the second year, in three lectures a week during the entire year.

*Maxwell's Dynamical Method of Treating the Electro-Magnetic Field* was taught by Dr. Pupin to the students of the second year, in one lecture a week during the second session.

*More Advanced Electrical Measurements* were taught by Dr. Pupin to the students of the second year, in one lecture a week throughout the year.

*Theoretical Electrical Engineering*—Alternating-Current

Machinery—was taught by Dr. Pupin to the students of the second year, in two lectures a week throughout the year.

*Electric Lighting* was taught by Mr. Crocker to the students of the second year, in four lectures a week during the first session.

*Electric Power* was taught by Mr. Crocker to the students of the second year, in three lectures a week during the second session.

*The Telegraph and Telephone (advanced)* were taught by Mr. Crocker to students of the second year, in two lectures a week during the second session.

*Practical Laboratory Work* in the use of electrical instruments, machines, etc., and methods of electrical and magnetic measurements and testing, occupied every afternoon for both first- and second-year students.

*Graduating Theses* were prepared by the students of the second year, which embodied the results of original experimental investigations on special subjects.

*A Memoir*, embodying an original design of a dynamo or motor, was required of each student during the vacation between the first and second years.

#### DEPARTMENT OF MINING.

In the absence of Prof. Munroe, instruction in this department was given by Mr. William Allen Smith, lecturer, and Mr. T. T. P. Luquer, assistant.

*Practical Mining*—Excavation and Tunnelling—was taught by Mr. T. T. P. Luquer to the students of the second class in all courses except those of analytical and applied chemistry and architecture, in two lectures a week throughout the year.

*Mining Engineering* was taught by Mr. William Allen Smith to the students of the third class in the courses of mining engineering, metallurgy, and geology and palæontology, in four lectures a week through the year.

*Mining Engineering* was taught by Mr. William Allen Smith to the students of the fourth class in the courses of

mining engineering, geology, and metallurgy, in three lectures a week during the first session.

*Ore Dressing* was taught by Mr. William Allen Smith to the students of the fourth class in the courses of mining engineering, geology, and metallurgy, in four lectures a week during the second session.

*The Summer School in Practical Mining* was held by Mr. William Allen Smith and Mr. T. T. P. Luquer in Pennsylvania during the months of June and July. It was attended by the students of the third class in the courses of mining engineering and metallurgy. Four weeks were spent in the Kohinoor Colliery, at Shenandoah, and in making a geological survey in the vicinity of Ashland. The rest of the time was devoted to a trip through the Wyoming coal field at Wilkesbarre and the iron region of New Jersey, visiting many mines.

#### DEPARTMENT OF ARCHITECTURE.

William R. Ware, B.S., Professor of Architecture.

Alfred D. F. Hamlin, A.M., Adjunct Professor of Architecture.

Frank Dempster Sherman, Ph.B., Adjunct Professor of Architecture.

Grenville T. Snelling, B.S., Assistant in Architecture.

Maximilian K. Kress, Curator of the Architectural Collections.

Charles A. Harriman, Instructor in Architectural Drawing.

All the subjects taught are limited to the students in the course of architecture.

*Freehand Drawing.* Each of the four classes has had one exercise a week with Adj.-Prof. Hamlin.

*Architectural Drawing.* The first class has had twelve hours a week with Mr. Harriman.

*Graphics.* The first and second classes have each had two hours a week with Adj.-Prof. Sherman, in *Projections*, *Shades and Shadows*, and the *Elements of Architecture*, besides work in the drawing room.



The second class has had one hour a week with Prof. Ware, through about half the year in *Perspective*, besides work in the drawing room.

*Archæology.* The first class has had two hours a week in reading a French text-book with Prof. Ware, and the second class two hours in reading a German text-book with Mr. Kress.

*History.* The first class has had three hours a week with Mr. Kress in *Ancient Architectural History*, one hour of which was devoted to drawing and sketching in illustration of the text.

The second, third, and fourth classes have had two hours a week with Adj.-Prof. Hamlin in *Modern Architectural History*, besides work in the drawing room in drawing and sketching illustrative examples, and in exercises in *Historical Design* during the second half of the year.

*Ornament.* The third and fourth classes have had two hours a week with Adj.-Prof. Hamlin in *Historical Ornament*, besides exercises in the drawing room.

*Specifications.* The third and fourth classes have had an hour a week with Mr. Snelling, besides exercises in the drawing room.

*Design.* Through about half the year the first and second classes have had exercises in *Design from Dictation* from Prof. Ware once a week; and the third and fourth classes studied problems in *Original Design* under Mr. Snelling and Adj.-Prof. Hamlin.

*Theory.* Prof. Ware has had the third and fourth classes once a week in the *Theory of Color* during the first half of the year, and in the *Theory of Composition* during the last half.

## PARENTAGE OF DEGREES.

Beloit College, Wis.....	1
Brooklyn Polytechnic Institute.....	1
Colgate University, Hamilton, N. Y.....	1
College of the City of New York.....	7
College of Pharmacy.....	1
College of Physicians and Surgeons.....	1
Columbia College.....	22
Hamilton College, Clinton, N. Y.....	1
Maine State College.....	1
Olivet College, Mich.....	1
Philadelphia College of Pharmacy.....	1
Princeton College.....	5
Rose Polytechnic Institute, Terre Haute, Ind.....	1
Shurtleff College, Ill.....	1
St. Francis Xavier.....	1
St. John's College.....	1
Syracuse University.....	1
Troy Polytechnic Institute.....	2
University of Alabama.....	1
University of Georgia.....	1
University of Vermont.....	1
Williams College, Mass.....	2
Yale College, Conn.....	2

## Foreign countries :

College of Ottawa, Canada.....	1
Institute Provincial de Guipuzcoa, Vergara, Spain. . .	1
University of New Brunswick, Canada.....	1

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60

Deduct for graduates having more than one degree.. 2

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58

Number holding degree of A.B.....	20
“ “ “ “ A.M.....	5
“ “ “ “ B.E.....	1
“ “ “ “ B.S.....	11
“ “ “ “ C.E.....	7
“ “ “ “ E.E.....	1
“ “ “ “ M.D.....	1
“ “ “ “ M.E.....	1
“ “ “ “ Ph.B.....	11
“ “ “ “ Ph.G.....	2

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60

*Conclusion.*

In conclusion I would say that the work of the students in all departments has been extremely satisfactory, and there is marked progress to be seen everywhere, and a decided advance in the standard of scholarship in the school.

Many valuable additions have been made by gift and purchase to the various museums.

Respectfully,

C. F. CHANDLER,

*Dean.*

June 30, 1892.

## SCHOOL OF POLITICAL SCIENCE.

### REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1892.

*To the President of Columbia College  
in the City of New York:*

SIR:

I have the honor to submit the following report of the work of the University Faculty of Political Science for the scholastic year 1891-92.

There have been, during the past year, 211 students in the School of Political Science. Of these, 157 were also registered in the Law School, 38 in the School of Philosophy, and 12 in the School of Mines; 34 were members of the senior class in the School of Arts; 6 pursued studies in the Union Theological Seminary, and 3 in the General Theological Seminary. Of the 211 students in the school, 39 had, on entrance into the school, completed the junior year of college, 33 of whom came from the Columbia School of Arts, and 6 from other colleges, viz., 3 from the College of the City of New York, 1 from Brown University, 1 from Williams College, and 1 from Canisius College.

Of the 211 students in the school, 89 had college degrees. Of these:

51	had the degree of Bachelor of Arts,
18	" " " " " " Science,
2	" " " " " " Letters,
4	" " " " " " Philosophy,
1	" " " " " " Laws,
1	" " " " " Civil Engineer,

8	had the degree of	Master of Arts,
1	" " " " " "	Science,
1	" " " " " "	Candidat Juris (Demidoff Law School, Yaroslavl),
2	" " " " " "	Doctor of Philosophy.

The colleges which sent the greatest number of students to the School of Political Science were as follows :

Columbia.....	51
C. C. N. Y.....	19
Yale.....	11
Harvard.....	7
Amherst.....	5
Rutgers.....	4
University of Iowa.....	2
Oberlin.....	2

Besides these, thirty-five colleges and technical schools, mostly in the South and West, contributed to make up the roll of our students. From foreign countries, there were representatives from the Frankfurt Gymnasium, the University of Toronto, the University of Freiburg, and the University of St. Petersburg.

Inasmuch as we have at Columbia made the beginning of the senior year the commencement of university work, we must add to the 89 students having degrees the 39 students who have completed the junior year. There were thus 128 university students in full standing attending the work of this school.

The following table will give an idea of the geographical distribution of the students this year, as compared with that of the students of the last two years.

	1889-90	1890-91	1891-92
Arkansas.....	1		
California.....	4	1	
Colorado.....	1		3
Connecticut.....	2		1
Illinois.....	1	3	4
Indian Territory.....			1
Indiana.....			1

	1889-90	1890-91	1891-92
Iowa.....		2	2
Kansas.....	1	1	1
Kentucky.....	1		1
Maine.....	1		
Maryland.....		1	1
Massachusetts.....		2	5
Michigan.....			2
Minnesota.....	1	1	1
Missouri.....	1	3	
Montana.....		2	
Nebraska.....		2	1
New Hampshire.....			1
New Jersey.....	9	24	18
New Mexico.....			1
New York City, including Brooklyn and Jersey City.....	*	*	† (132)
New York, including New York City, Brooklyn, and Jersey City.....	65	122	153
North Carolina.....		1	
Ohio.....	2	2	2
Pennsylvania.....		7	4
Rhode Island.....			1
Tennessee.....			2
Texas.....	1		
Utah.....		1	
Vermont.....	1	2	1
Virginia.....		2	
Washington.....	1		
Wisconsin.....	1	2	
Residence unknown.....	3	11	
Asiatic Turkey.....		1	
Austria.....		1	1
Canada.....		1	2
Germany.....		2	
Japan.....	1	1	
Russia.....			1
Total number of students.....	98	198	211

The following table gives a comparison of the number of graduate students attending the School of Political Science during the past four years.

\* New York City in New York State.

† New York City here includes Brooklyn and Jersey City so as to show the local constituency.

COLLEGE	1888-89	1889-90	1890-91	1891-92
Allegheny.....			1	
Amherst.....	2		4	4
Antioch.....			1	1
Berlin, University of.....		1		
Bowdoin.....	1	1	1	
Brown.....		1		
California, University of.....		1		
Cambridge, University of, Eng.	1			
Cincinnati, University of.....	1			
City of New York, College of..	5	8	15	12
City of New York, University of,				1
Colorado, University of .....				1
Columbia.....	18	13	17	22
Cornell.....			2	1
Correspondence University....	1			
Dartmouth.....				1
Davidson, N. C.....			1	
Denison University, Ohio.....			1	
Detroit.....				1
Frankfurt Gymnasium.....				1
Freiburg, University of.....				1
Georgetown University.....			2	1
Georgia, University of.....			2	
Hamilton.....			1	1
Hamline, Minnesota.....			2	
Harvard.....	1	4	1	8
Heidelberg, Germany.....		1		
Hillsdale.....		1		
Hobart.....				1
Holy Cross, Worcester.....			1	
Illinois College.....		1		
Indiana, University of.....				1
Iowa, University of.....				1
Johns Hopkins University.....	1			
Kansas, University of.....		1	1	
Knox.....	1			1
Lafayette.....				1
Manhattan.....			1	1
Mansfield Normal College.....				1
Marietta.....				1
Maryland Agricultural.....		1		
Mass. Inst. of Technology.....				1
Michigan, University of.....			1	
Minnesota, University of.....		1	1	1
Nebraska, University of.....	1			
New Jersey.....	2	3	3	1
Notre Dame.....		1		

COLLEGE	1888-89	1889-90	1890-91	1891-92
Oberlin. ....			1	2
Olivet... ..				1
Pennsylvania, University of....			2	
Polytechnic Inst. of Brooklyn..				1
Ripon, Wis.....		1		
Roberts, Turkey.....	1			
Rochester, University of.....		1	1	1
Rutgers.....		1	1	3
South University.....		1		
St. Francis Xavier.....			1	1
St. John's, Md.....			1	1
St. Stephen's.....			1	1
Toronto, University of.....				1
Tulane University.....		1	1	
Union.....			1	
Vermont, University of.....			1	1
Vienna Technical School.....			1	1
Washington and Jefferson, Pa. .			1	
Wesleyan University, Conn....		1	1	1
West Virginia, University of. .			1	
Williams.....	4	4	3	
Wisconsin, University of.....	1	1	2	
Yale.....	1	6	3	9
	<hr/>	<hr/>	<hr/>	<hr/>
Total number of graduates	42	56	82	91
Deduct for repetition of degrees			11	2
			<hr/>	<hr/>
Total number of colleges	16	24	37	44

During the past year the following courses of instruction have been given :

# I. HISTORY AND POLITICAL THEORIES.

## 1st. *History.*

Instructor.	Course.	Hours per week.	Number of students.
Prof. Burgess.....	Constitutional History of the United States	4—2d term	38
Prof. Osgood.....	Constitutional History of Europe.....	4—1st term	50
Prof. Osgood.....	Constitutional History of England.....	2	20



Instructor.	Course.	Hours per week.	Number of students.
Prof. Osgood.....	American Colonial History....	3—2d term	3
Prof. Dunning.....	Constitutional History of the United States during Civil War and Reconstruction....	2—2d term	6
Prof. Dunning.....	Relations of England and Ireland.....	1—1st term	11
Prof. Goodnow....	Historical and Political Geography....	1	12
Prof. Cohn.....	Modern History of France, especially since 1815.....	1	6

*2d. Legal History.*

Prof. Moore.....	History of Diplomacy	1	16
Prof. Munroe Smith	History of European Law.....	2	15
Dr. Bancroft.....	History of United States Diplomacy..	1	16

*3d. Political Philosophy.*

Dr. Dunning.....	History of Political Theories....	2½	26
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## II. PUBLIC LAW AND COMPARATIVE JURISPRUDENCE.

*1st Constitutional and International Law.*

Prof. Burgess.....	Comparative Constitu- tional Law.....	3	16
Prof. Moore.....	International Law...	1	16

*2d. Administrative Law.*

Prof. Goodnow....	Comparative Adminis- trative Law.....	2	40
Prof. Goodnow....	Law of Taxation....	1	5
Prof. Goodnow....	Municipal Corpora- tions.....	1	8

*3d. Comparative Jurisprudence.*

Instructor.	Course.	Hours per week.	Number of students.
Prof. Munroe Smith	Institutes of Roman Law . . . . .	1	44
Prof. Munroe Smith,	Comparative Jurisprudence . . . . .	2	8
Prof. Munroe Smith,	International Private Law . . . . .	1	12

## III. POLITICAL ECONOMY AND SOCIAL SCIENCE.

*1st. Political Economy.*

Mr. Ford . . . . .	History and Practical Political Economy.	3	18
Prof. Seligman . . . . .	Railroad Problems . . .	2	18

*2d. Science of Finance.*

Prof. Seligman . . . . .	Financial History of the United States . .	2	12
Prof. Seligman . . . . .	Tariff History of the United States . . . . .	2—2d term	12
Dr. Spahr . . . . .	Taxation and Distribution . . . . .	1	8

*3d. Social Science.*

Prof. Giddings . . . . .	Principles of Sociology	2	25
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## IV. SEMINARIA.

*1st. History.*

Prof. Burgess . . . . .	The Administration of Andrew Jackson . .	1	9
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*2d. Constitutional and International Law.*

Prof. Moore . . . . .	Neutralization of Territory and the Means of International Communication.		
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*3d. Administrative Law.*

Instructor.	Course.	Hours per week.	Number of students.
Prof. Goodnow....	Law of Officers and Extraordinary Legal Remedies.....	1	8

*4th. Legal History.*

Prof. Munroe Smith,	Study of Latin, French and German Codes	1	12
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*5th. Comparative Legislation.*

Prof. Munroe Smith,	Different Topics....	1	3
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*6th. Political Economy.*

Prof. Seligman.....	Various Subjects....	1	8
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*7th. Science of Finance.*

Prof. Seligman.....	The Income Tax in Theory and Practice	1	10
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In addition to the regular seminarium work, six students have been working under the direction of Prof. Seligman upon special subjects, such as Justice in Taxation, the Financial History of Virginia, the Inheritance Tax, the Doctrine of Special Assessments, the Economics of the Russian Village, and the History of Factory Legislation in the United States; four students have been working under the direction of Prof. Munroe Smith upon the History of Marriage and Divorce Legislation in New Jersey, the Law of Co-operative Associations, the Law of Marriage and Divorce, and the Law of Bankruptcy; and one student has been working under the direction of Prof. Goodnow upon the Principle of the Separation of Powers.

In the absence of Prof. Mayo Smith, his general course was conducted by Mr. Worthington C. Ford in an entirely satisfactory manner.

The course on Sociology by Prof. Giddings, was highly

successful and was received with great interest and enthusiasm by the students.

The extraordinary development of the Department of Diplomacy and International Law, under the guidance of Prof. Moore, should be especially noted. Prof. Moore combines a thorough theoretical knowledge of these subjects with long practice in the State Department of the United States Government. His equipment is hardly equalled by that of any other teacher of these subjects in the country. He has, in a single year, made Columbia the leading university of the land in the department which he adorns.

It will be observed that two new courses in American history, viz., one by Adj.-Prof. Osgood upon the Colonial Period, and one by Adj.-Prof. Dunning upon the Civil War and Reconstruction, have been added to the curriculum during the present year. With these additions, the study of American history is now fairly well provided for. But we feel the want of more instruction in mediæval history. We should increase the facilities for study upon this period, whenever the financial condition of the college will allow it.

I cannot refrain from giving renewed expression to the hope that the study of sociology, so successfully inaugurated by Prof. Giddings, will be permitted to enjoy an uninterrupted development. The course is most highly esteemed both by the faculty and the students, and its loss would be regarded by all as a calamity to the institution.

The *Political Science Quarterly* has passed through another successful year, and the evidences of the appreciation with which it is received have been greatly multiplied.

The new series of monographs upon History, Economics, and Public Law, under the management of Prof. Seligman, has completed its first volume and has been very favorably received.

The following candidates for the degrees of master of arts and doctor of philosophy were recommended to the University Council as qualified to receive the respective degrees:

## A. For the Degree of Doctor of Philosophy :

## 1. Charles Henry James Douglas.

Major subject : Finance.

Minor subjects : Political Economy and Constitutional Law.

Title of Dissertation—The Financial History of Massachusetts.

## 2. Edmund Steele Joy.

Major subject : Constitutional Law.

Minor subjects : Administrative Law, Comparative Jurisprudence.

Title of Dissertation—The Right of the Territories to Become States.

## B. For the Degree of Master of Arts :

## 1. Addison Allen.

Major subject : Comparative Constitutional Law.

Minor subjects : Administrative Law, Comparative Jurisprudence.

Title of Essay—Congress of the United States.

## 2. DeWitt Bailey.

Major subject : Constitutional History.

Minor subjects : Political Economy, Legal History.

Title of Essay—The Court of King's Bench

## 3. George James Bayles.

Major subject : Administrative Law.

Minor subjects : Legal History, Comparative Constitutional Law.

Title of Essay—Nolle Prosequi.

## 4. Cortlandt Field Bishop.

Major subject : Administrative Law.

Minor subjects : Diplomacy, other subject under the Faculty of Philosophy.

Title of Essay—Election Laws of American Colonies before the Revolution.

## 5. Charles Moore Bleecker.

Major subject : Administrative Law.

Minor subjects: Constitutional Law, History.

Title of Essay—Election Laws.

6. William Carl.

Major subject: Constitutional History of Europe and the United States.

Minor subjects: Political Economy, Political Theories.

Title of Essay—The History of the Presidential Elections of 1824 and 1828.

7. Frederick Merritt Corse.

Major subject: Political Economy.

Minor subjects: Constitutional History, Social Science.

Title of Essay—The General Property Tax.

8. Henry Murray Dater.

Major subject: Constitutional History.

Minor subjects: History of Political Theories, Legal History.

Title of Essay—Andrew Jackson and the Tariff.

9. John Milton Gitterman, Ph.D.

Major subject: Administrative Law.

Minor subjects: Comparative Jurisprudence, History.

Title of Essay—The Appointing Power in New York.  
Part I. The Council of Appointment to 1821.

10. Charles Conover Kalbfleisch.

Major subject: Comparative Administrative Law.

Minor subjects: Comparative Constitutional Law, Legal History.

Title of Essay—The Right of a De Jure Officer to Recover Salary Paid to a De Facto Officer.

11. George Gillis Leonard.

Major subject: Administrative Law.

Minor subjects: Political Economy, Legal History.

Title of Essay—Compensation of Officers.

12. William Zebina Ripley.

Major subject: Political Economy.

Minor subjects: Finance, Sociology.

Title of Essay—The Nature of Income.

13. Seth Banister Robinson.

Major subject: Finance.

- Minor subjects: Comparative Constitutional Law, Legal History.  
Title of Essay—Massachusetts Income Tax.
14. John Edward Roeser.  
Major subject: Administrative Law.  
Minor subjects: Comparative Constitutional Law, Legal History.  
Title of Essay—The Right of De Facto and De Jure Officers to Salary.
15. Victor Solomon Rosewater.  
Major subject: Finance.  
Minor subjects: Constitutional Law, Social Science.  
Title of Essay—The Income Tax in Switzerland.
16. Solomon Marcus Stroock.  
Major subject: Constitutional History.  
Minor subjects: Political Economy, Political Theories.  
Title of Essay—Jackson and Internal Improvements.
17. Max West.  
Major subject: Finance.  
Minor subjects: Political Economy, Administrative Law.  
Title of Essay—The Inheritance Tax.
18. Henry Crofut White.  
Major subject: English Literature, etc.  
Minor subjects: Administrative Law, Diplomacy, and International Law.  
Title of Essay—History of the Theories of English Versification.
19. Grenville Bayard Winthrop.  
Major subject: Political Economy.  
Minor subjects: Legal History, Constitutional History.  
Title of Essay—The History of English Income Tax.

The different members of the Faculty of Political Science have reflected long and earnestly upon the question of opening the doors of their lecture rooms to the general public. They are all animated by a sincere desire to bring the university into closer relations with the world at large and make it the centre of educational influences which shall

extend to all classes of the people. But they greatly doubt whether these results will be accomplished by permitting the attendance of the public upon the regular courses of the university. They fear, or rather they feel reasonably certain, that the results of such a movement will be disadvantageous in any alternative. They believe that either the public will find the regular courses incomprehensible, on account of their scientific character, and will refuse to take advantage of the proffered opportunity,—in which case no good will have been accomplished, save the exhibition of a certain amount of good-will,—or that the professors will gradually change the character of their instruction from scientific to popular, in order to meet the wants and the capacities of average hearers and changing audiences,—in which case a positive and an almost irreparable injury will have been inflicted upon the university, as the conservator of high learning and the home of scientific and philosophical research.

This conviction does not proceed wholly from speculation upon their part. They have in the history of the French universities a highly instructive experience upon this subject. It is the general conclusion of the most competent observers that the opening of the regular courses of instruction to the public has done more than anything else to destroy the scientific character of the instruction in the French universities. The professors in these universities have gradually changed the character of their instruction to satisfy the popular tastes and, in many instances, to meet the demands for popular amusement. Instead of logically connected courses, scientific method, and conduct of research, they have largely substituted disconnected lectures, which are far rather brilliant popular orations than real university teaching. They have entertained the public, we may say that they have instructed the public, but they have grievously injured the scientific character of the universities.\*

\* See Leo S. Rowe's "Instruction in French Universities." *Annals of the American Academy of Political Science*, January, 1892.

Prof. Chas. Gide, "Political Economy in France." *Political Science Quarterly*, December, 1890.



The Faculty of Political Science would respectfully suggest the establishment of five or six short courses of lectures, of six to eight lectures in each course, upon subjects of History, Political and Legal Science, Political Economy, and Sociology, to be given under the auspices of the Academy of Political Science of Columbia College, to be given in the evening, and without any charge for admission.

Such lectures would be prepared, both as to matter and style, to meet the requirements of a general, changing audience, would be given at an hour when it would be possible for the busy public to attend, would not be burdensome as to number, and would be a free-will, as well as a good-will, offering from the university to the public. The members of the Faculty of Political Science feel that this is the only practical way to maintain the strict scientific character of the university on the one side, and render some real and acceptable service to the public on the other.

Very respectfully submitted,

JOHN W. BURGESS,

*Dean.*

June 30, 1892.

## APPENDIX.

## OFFICERS OF INSTRUCTION.

Professors.....	6
Adjunct Professors.....	2
Lecturers.....	6
Assistants.....	1
	<hr/>
	15

Number of students holding degree of	A.B.....	51
" " " " " "	B.S.....	18
" " " " " "	B.L.....	2
" " " " " "	Ph.B. ....	4
" " " " " "	LL.B. ....	1
" " " " " "	C.E.....	1
" " " " " "	M.A.....	8
" " " " " "	M.S.....	1
" " " " " "	Candidat Juris.....	1
" " " " " "	Ph.D.....	2
		<hr/>
		89
Students who have completed the junior year.....		39
		<hr/>
Total number of University students.....		128
Total number of all students.....		211

## SCHOOL OF PHILOSOPHY.

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### REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1892.

*To the President of Columbia College  
in the City of New York:*

SIR :

I have the honor to submit herewith my second annual report on the work of the University Faculty of Philosophy. This report covers the work of the academic year ending June 30, 1892. The various courses of instruction and research in philosophy, philology, and letters that have been carried on during the year under the direction of the faculty, are enumerated in the accompanying tabular view. The usual statistical details regarding the students enrolled in each of the several courses are also given.

Under the head of *Æsthetics* are enumerated the lectures given during the year to students, but also open to the public, by Benjamin I. Gilman, Ph.D., of Cambridge, Mass., Prof. John C. Van Dyke, of Rutgers College, and William J. Henderson, A.M., and Mr. George William Warren, of the city of New York. Mr. Gilman delivered eight lectures, Mr. Henderson six, and Prof. Van Dyke and Mr. Warren thirteen each. Unfortunately there was no hall in the college large enough to accommodate the number of persons desiring to attend some of these lectures. More than fifty applications for tickets to attend the lectures by Mr. Warren had to be refused, and more than one hundred and fifty persons who expressed a desire to be permitted to

## COURSES OF INSTRUCTION, 1891-92

Instructor	COURSES	Hours per week	Students	Total number of stu- dents
	PHILOSOPHY, ETHICS, AND PSYCHOLOGY			
Prof. Butler	II. General History of Philosophy—Lectures, essays, required reading.	2	{ 10 A.B., 1 Ph.D., 6 Sp., 1 Aud.	{ 18
Dr. Hyslop	III. Ethics, introductory course—Lectures and essays.	2	{ 12 A.B., 1 A.M., 1 Ph.D.	{ 14
Prof. Butler	V. The Philosophy of Kant and his successors—Lectures.	2	10 Ph.D., 5 Sp.	15
Prof. Butler	VII. Pedagogics; the Psychology of Childhood; Methods of Teaching—Lectures and required reading.	1	{ 3 A.B., 2 Ph.D., 3 Sp., 2 Aud.	{ 10
Dr. Hyslop	X. Practical Ethics—Lectures and essays.	2	{ 5 A.M., 1 Ph.D., 1 Sp.	{ 7
Prof. Butler	XIV. Philosophical Seminar: the lesser contemporaries of Kant.	1	11 Ph.D.	11
Prof. Butler	XV. Pedagogical Seminar: compulsory education and its effects.	1	3 Ph.D., 4 Sp.	7
	EXPERIMENTAL PSYCHOLOGY			
Prof. Cattell	I. Experimental Psychology, introductory course—Lectures and laboratory work.	2	3 A.B., 3 Ph.D.	6
Prof. Cattell	II. Advanced Physiological Psychology—Laboratory work.	2	1 Ph.D.	1
Prof. Cattell	III. Research and individual instruction.		2 Ph.D.	2
	GREEK			
Prof. Merriam	I. The Lyric Poets—Lectures.	1	4 A.B.	4
Prof. Merriam	II. Æschylus, Theocritus, Demosthenes, Æschines.	2	3 A.B.	3
Prof. Merriam	III. New Testament Greek: the Gospels.	1	9 A.B., 1 A.M.	10
Prof. Merriam	IV. New Testament Greek: the Epistles.	1	{ 2 A.B., 1 A.M., 1 Ph.D.	{ 4

Prof. Merriam	V. Greek Art—Lectures.	1	{ 8 A.B., 3 A.M., 8 Sp., 12 Aud.	{ 31
Prof. Merriam	VI. Plato.	2	{ 1 A.B., 1 A.M., 2 Ph.D.	{ 4
Prof. Merriam	VII. Aristophanes.	2	{ 1 A.B., 2 A.M., 2 Ph.D.	{ 5
Prof. Peck	I. Plautus.	1	4 A.B., 1 A.M.	5
Prof. Peck	II. Horace.	1	2 Ph.D.	2
Prof. Peck	III. Persius.	1	{ 1 A.B., 1 A.M., 3 Ph.D.	{ 5
Prof. Peck	IV. History of the Latin Language.	1	3 A.B., 1 Ph.D.	4
Prof. Peck	V. Roman Philosophy.	1	2 Ph.D.	2
Prof. Peck	VI. Latin Conversation.	1	{ 2 A.B., 1 Ph.D., 1 Sp.	{ 4
Prof. Peck	VII. Prose Composition.	1	1 A.B.	1
Prof. Jackson	I-II. Development of the English language from the 12th to the 15th century, including especially Chaucer.	2	{ 2 A.B., 1 A.M., 1 Ph.D., 1 Sp., 1 Aud.	{ 6
Prof. Jackson	III. Shakspeare: language and literature.	2	{ 21 A.B., 1 A.M., 3 Sp., 2 Aud.	{ 27
Mr. Brander Matthews	IV. English Versification, with a consideration of the fixed forms of verse.	2	{ 8 A.B., 2 A.M., 6 Sp.	{ 16
Mr. Brander Matthews	V. The Humorous Drama of the English language.	2	{ 12 A.B., 1 A.M., 5 Sp.	{ 18
Mr. Brander Matthews	VI. The Prose Fiction of the 19th century in Great Britain and the United States.	2	{ 1 A.B., 3 A.M., 23 Sp.	{ 27
Prof. Jackson	VII. Anglo-Saxon Poetry and Prose.	2	3 A.B.	3

## LATIN

## ENGLISH

## COURSES OF INSTRUCTION.—CONTINUED.

Instructor	COURSES	Hours per week	Students	Total number of stu- dents
	GERMANIC LANGUAGES			
Prof. Boyesen	I. Goethe's Faust, with commentary.	2	10 A.B., 4 A.M.	14
Prof. Boyesen	II. History of German Literature—Lectures.	2	{ 9 A.B., 2 A.M., 3 Sp.	{ 14
Prof. Boyesen	IV. History of Scandinavian Literature—Lectures.	2	1 A.M., 1 Ph.D.	2
Prof. Boyesen	V. German Seminar.	2	1 A.M., 1 Ph.D.	2
Prof. Carpenter	VI. History of the German Language—Lectures.	2	1 A.B., 1 A.M.	2
Prof. Carpenter	VII. Icelandic, elementary course.	2	1 A.B., 1 A.M.	2
Prof. Carpenter	IX. Middle High German.	2	1 A.B., 1 Ph.D.	2
Prof. Carpenter	X. Icelandic, advanced course.	2	2 Ph.D.	2
Prof. Carpenter	XI. Old High German.	1	1 Ph.D., 1 Aud.	2
Dr. Dodge	XII. Danish.	3	1 A.B., 1 Ph.D.	2
Dr. Dodge	XIII. Swedish.	2	1 A.B.	1
	ROMANCE LANGUAGES			
Prof. Cohn	II. French literature in the 17th century.	2	{ 8 A.B., 1 Ph.D., 1 Sp.	{ 10
Prof. Cohn	III. French literature in the 18th century.	2	2 A.B., 2 Ph.D.	4
Prof. Cohn	IV. French Poetry in the 19th century.	1	3 A.B., 1 Ph.D.	4
Prof. Cohn	V. Literary Criticism in France.	1	1 Ph.D.	1
Prof. Cohn	VI. Seminar for the study of special topics in French literature.	1	2 Ph.D.	2
Prof. O'Connor	VII. History of French language.	1	2 A.B.	2
Prof. O'Connor	VII. Anglo-Norman French in law reports.	2	4 Sp.	4
Prof. O'Connor	IX. Provençal: critical reading of texts.	2	2 Ph.D., 1 Sp.	3
Prof. Cohn	XII. Advanced French grammar.	2	1 Ph.D., 1 Sp.	2
Mr. Speranza	XIII. Critical study of Dante.	2	1 Ph.D.	1

SANSKRIT					
Prof. Perry	I. Sanskrit, elementary course.	3	1 Sp., 1 Aud.	2	
Prof. Perry	II. Sanskrit, advanced course.	2	1 A.B., 1 Ph.D.	2	
Prof. Perry	III. Lectures on the Study of Language.	2	3 Sp.	3	
SEMITIC LANGUAGES					
Prof. Gottheil	I. Biblical Hebrew, elementary course.	2	7 A.B., 1 Sp.	8	
Prof. Gottheil	II. Biblical Hebrew, second course.	2	{ 2 A.B., 1 Ph.D., 3 Sp., 2 Aud.	} 8	
Prof. Gottheil	III. Rabbinical Hebrew ; a treatise in the Mishna.	2	1 A.B., 2 Sp.	3	
Prof. Gottheil	IV. Rabbinical Hebrew ; treatise Rosh Hashanah.	2	{ 1 A.B., 1 Ph.D., 1 Sp.	} 3	
Prof. Gottheil	V. Arabic, first course.	2	{ 1 A.B., 1 Ph.D., 1 Sp.	} 3	
Prof. Gottheil	VI. Arabic, advanced course.	2	4 Sp.	4	
Prof. Gottheil	VII. Assyrian, first course.	2	1 Ph.D., 6 Sp.	7	
Prof. Gottheil	VIII. Syriac, first course.	2	1 Ph.D., 7 Sp.	8	
Prof. Gottheil	IX. Syriac, second course.	1	1 Ph.D.	1	
IRANIAN LANGUAGES					
Prof. Jackson	I. Avesta : grammar and reading of texts.	1	1 Ph.D.	1	
Prof. Jackson	IV. Zoroaster and his teaching—Lectures.	1	22 A.B.	22	
ÆSTHETICS					
Mr. Gilman	I. Psychology of Music—Eight lectures.				43
Mr. Van Dyke	II. Old Italian and Modern French Art—Thirteen lectures.				202
Mr. Henderson	III. The History of Music—Six lectures.				143
Mr. Warren	IV. Practical Music—Thirteen lectures.				201

attend the lectures by Prof. Van Dyke were unable to secure admission.

During November and December, Mr. Edmund Clarence Stedman delivered eight lectures in the Berkeley Lyceum on the "Nature and Elements of Poetry." Five hundred and six tickets for Mr. Stedman's lectures were issued. Other public lectures were given by Mr. John MacMullen, an alumnus of the college, who spoke on "The Gladiators," on the evening of February 12th; Dr. William H. Thomson, of the University of the City of New York, who addressed a large audience on "Materialism and the Modern Physiology of the Nervous System," on February 16th; and Mr. A. Loissette who lectured on the "Conditions of Learning and Retaining," on March 23d.

During the year, 130 students have been pursuing their studies, wholly or in part, under the direction of this faculty. This number shows an increase of more than 41 per cent. over the enrollment of the first year, which was 92.

These 130 students are classified as follows:

Students who have "successfully pursued a course of study in the School of Arts of this college or in some other institution maintaining an equivalent course of study, to the close of the junior year":			
Seniors in the School of Arts.....	38		
Seniors in Collegiate Course for Women..	2		
Seniors from other colleges.....	1	41	
Students holding a bachelor's degree:			
Men.....	50		
Women:			
Registered through Barnard College..4			
In Collegiate Course for Women.....2	6	56	
Not included in any of the above.....		33	
Total.....			130

The large increase in the number of special students—there being 30 in 1891-92 and only 3 in 1890-91—is due in part to the fact that many students in the professional schools were attracted to the Faculty of Philosophy by the courses offered in English literature by Mr. Brander Matthews. The attraction of special students from other departments of the university in such large numbers is certainly an important



event in the history of the year, and emphasizes the great advantage of our university organization, which permits a student in any one department of the institution to supplement his regular work with instruction in other subjects in which he is interested.

The 56 students holding the bachelor's degree, or its equivalent, represented 28 different institutions, as against 20 last year, as follows :

Columbia College.....	16	Beloit College.....	1
College of the City of New York.....	4	College de Beyrût.....	1
Harvard University.....	3	Maryville College.....	1
Yale University.....	3	Colgate University.....	1
College of New Jersey....	2	Wabash College.....	1
Rutgers College.....	2	Franklin and Marshall College.....	1
Wesleyan University.....	2	Bryn Mawr College.....	1
Vassar College.....	2	Harvard College Annex....	1
Ohio Wesleyan University,	2	St. Stephen's College.....	1
German Gymnasia.....	2	Roumanian Lycée.....	1
University of Vermont....	1	Garrett Biblical Institute...	1
University of Pennsylvania,	1	General Theological Seminary .....	1
University of the City of New York.....	1	Agricultural College of Pennsylvania.....	1
University of Rochester...	1		
University of Cincinnati...	1		
			56

These 56 students held the following degrees at the time of their registration with this Faculty :

Bachelor of Arts.....	34
Bachelor of Philosophy.....	4
Bachelor of Science.....	3
Bachelor of Letters.....	1
Bachelor of Laws.....	1
Bachelor of Divinity.....	3
Bachelor of Scientific Agriculture.....	1
Zeugniss der Reife .....	2
Certificate of Lycée.....	1
Master of Arts.....	8
Master of Science.....	2
Doctor of Philosophy.....	2
Doctor of Pedagogy .....	1
	63

Deduct for students holding more than one degree.. 7

Of the number enrolled, 14 were students in the theological seminaries of this city, admitted in accordance with the resolution of the trustees, passed April 7, 1890. Of the 14, 5 came from the General Theological Seminary and 9 from the Union Theological Seminary.

By authority of the trustees, certain courses in this faculty were thrown open to auditors during the second term. These courses were 43 in number. The department of philosophy offered 6; the department of Greek, 6; the department of Latin, 1; the department of English, 1; the department of Germanic languages, 12; the department of Romance languages, 5; the department of Semitic languages, 9; and the department of Sanskrit, 3. Although these courses were thrown open in the middle of the year, no fewer than 48 persons registered as auditors and paid the appropriate fee. Of these, 10 were men and 38 women. The auditors were distributed among the various departments as follows: Greek, 39; philosophy 5; Semitic languages, 2; Sanskrit, 1; and Germanic languages, 1. No evil effects have followed from the admission of auditors, and the lectures given to the regular students have not been altered in the least because of their presence.

At the close of the year, 39 candidates for the degree of bachelor of arts—38 men and 1 woman—were certified to the Faculty of Arts as having satisfactorily completed such work as they had undertaken with the Faculty of Philosophy.

The following candidates for the degrees of master of arts and doctor of philosophy, respectively, were recommended during the year by this faculty to the University Council as qualified to receive the appropriate degree, in so far as their work had fallen under the jurisdiction and supervision of the Faculty of Philosophy:

A. For the degree of master of arts:

1. Cortlandt Field Bishop, A.B., Columbia College, 1891.  
Major subject: with the Faculty of Political Science.

Minor subjects: one with the Faculty of Political Science, English language and literature.

Essay: Election Laws of the American Colonies before the Revolution.

2. James Haviland Merritt, Ph.B., Columbia College, 1880.

Major subject: with the Faculty of Mines.

Minor subjects: one with the Faculty of Mines, Greek archæology and epigraphy.

Essay: Roman Monumental Arches.

3. Gustave Simonson, A.B., Columbia College, 1886.

Subjects: Latin, English, and Greek.

4. Marcus Simpson, A.B., Columbia College, 1891.

Major subject: High German language and literature.

Minor subjects: Scandinavian languages and literature, Latin language and literature.

Essay: Romanticism and Realism in Germany.

5. George Oakley Totten, Jr., Ph.B., Columbia College, 1891.

Major subject: with the Faculty of Mines.

Minor subjects: one with the Faculty of Mines, Greek archæology and epigraphy.

Essay: Renaissance Churches of Florence.

6. Charles Peck Warren, Ph.B., Columbia College, 1890.

Major subject: with the Faculty of Mines.

Minor subjects: one with the Faculty of Mines, Greek archæology and epigraphy.

Essay: The Orders of Architecture.

7. Henry Crofut White, A.B., Yale College, 1891.

Major subject: English language and literature.

Minor subjects: both with the Faculty of Political Science.

Essay: History of the Theories of English Versification.

#### B. For the degree of doctor of philosophy:

1. Robert Ingram Brown Illman, A.B., Columbia College, 1885.

Subjects: Greek, history of philosophy, and ethics.

Dissertation: The Greek Epistle of St. Paul to the Romans.

Of the above, Messrs. Simonson and Illman presented themselves under the old rules. This privilege is no longer extended except to candidates who have already announced their intention of taking one of the higher degrees on the conditions prevailing before the organization of this faculty. It is not known that more than two such cases remain to be dealt with.

The University Council appointed during the year five fellows in subjects falling within the scope of this faculty, namely: Harold Griffing, A.B., fellow in philosophy; Max L. Margolis, A.M., fellow in Semitic languages; Charles H. Hayes, A.M., fellow in German; George C. D. Odell, A.M., fellow in English; and Marcus Simpson, A.B., fellow in German.

During the year Mr. Griffing has pursued courses of study in the history of philosophy, experimental psychology, Latin, and physics. He has completed two investigations, one on "Lambert and his Place in the German Philosophy of the 18th Century," and another, an original experimental investigation, on "Pressure."

Mr. Margolis has pursued studies in the departments of Semitic languages, Latin, and philosophy. He has completed during the year an investigation relating to the Columbia College manuscript of a Talmudic treatise, and has under way a second investigation regarding the "Exegesis of the Bible in the Mishna." The first of these investigations was published during the year.

Mr. Hayes has pursued courses of study in Germanic languages and philosophy. He has been engaged during the year in studying the life and works of Hans Sachs. He has also lectured before the German seminar on a "Critical Comparison of the Sagas on the Norse Discovery of America," and before the philosophical seminar on the "Life and Philosophical Writings of F. H. Jacobi."

Mr. Odell has studied in the departments of English, Greek, and Latin. He has prepared a paper on "Comparisons, Linguistic and Otherwise, between Persius and Horace,"

and also an essay on "Plato's Idea of the Good as Expressed in the Republic."

Mr. Marcus Simpson has studied in the Germanic and Latin departments. He has been engaged particularly on a comparison of the realistic and romantic schools in Germany, and has read before the German seminar papers on the "Volsunga Saga," and the "Nibelungenlied."

During the year Professor Price has been absent on leave and the instruction in the English language and literature has been given by Prof. Jackson and Mr. Brander Matthews. At the close of the year, Mr. Brander Matthews was appointed professor of literature, and Dr. R. J. H. Gottheil professor of Rabbinical literature and Semitic languages.

I append herewith a statement of the new faculty legislation during the academic year :

**CANDIDATES FOR PH.D.**—Resolved, That hereafter no examination be held for the degree of Ph.D. until a dissertation is handed to the examiners.—Adopted Oct. 16, 1891.

**ASSISTED TUITION**—Resolved, That a committee of three be appointed to consider the question of assisted tuition, and formulate a plan for submission to the University Council.—Adopted Oct. 16, 1891.

Professors Butler, Drisler, and Quackenbos appointed as such Committee.

**GRADUATING THESIS OF CANDIDATES FOR BACHELOR'S DEGREE**—Resolved, That all students registered with this faculty as candidates for a bachelor's degree, shall be required to conform to such requirements and regulations regarding graduation theses as may be from time to time established by the Board of the College for members of the senior class in the School of Arts.—Adopted Nov. 20, 1891.

**EARLY SELECTION OF ELECTIVES**—Resolved, That the Board of the College be requested to pass a resolution making it compulsory for seniors to notify the dean of the School of Arts of their electives two weeks before the opening of the term in October.—Adopted April 29, 1892.

**REVISION OF REGULATIONS**—Resolved, That a committee of five be appointed to make a revision of rules and regulations of this faculty and to report at the November meeting.—Adopted June 1, 1892.

Professors Butler, Merriam, Jackson, Cohn, and another appointed as such Committee.

The equipment of this faculty on the linguistic side is very strong, and it seems able to meet all the demands made upon it in that direction so far as instruction in the several languages is concerned. It will be necessary, however, in the near future to make more formal and specific arrangements for the subject of comparative philology, either by the foundation of a new chair or by the formal assignment of comparative philology to the chair of Sanskrit. No university, particularly one in which so many departments of linguistic instruction are represented, can expect to attract the highest class of students of language, unless there is ample opportunity and inducement to undertake and carry on investigation in the department of comparative philology.

There is also an increasing and well-founded demand for a chair of geography. This subject has been carefully studied for years in the universities of Germany, and more recently it has obtained a foothold at Oxford and Cambridge. Not only is geography of paramount pedagogic importance, but the influence of physical conditions on man's development is understood now as never before. Many students of philology, philosophy, and history would welcome an opportunity to enter upon the scientific study of geography.

Your attention is especially directed to the fact that the present arrangement regarding seniors in the School of Arts, while admirable in theory, requires additional faculty legislation in order that it may work well in practice. It is not established, for example, that all of the courses in philosophy, philology, and letters that a senior may elect, are those offered by this faculty. It therefore happens, especially in the case of the modern languages, that a senior may be pursuing one course in a modern language under the jurisdiction of this faculty, and another course in the same modern language outside of its jurisdiction. Again, some officers of instruction proceed upon one interpretation of the existing status and others upon another. The result is that there is irregularity, diversity, and deficiency in the reports rendered and records kept regarding members of the senior class in the School of Arts who have elected

studies under the Faculty of Philosophy. In order to simplify the administration and place a clear interpretation upon the existing legislation, I submit the following resolutions, and ask that they be submitted to the Faculty of Arts and recommended for adoption :

1. Resolved, That no senior in the School of Arts shall be permitted to elect any course in philosophy, philology, or letters other than those offered by the University Faculty of Philosophy.

2. Resolved, That upon receiving the list of electives chosen by each member of the senior class, the dean of the School of Arts shall transmit a certified list of the same to the dean of each and every university faculty under which the student has elected to study, and shall thereafter hold the deans of the several university faculties responsible for all reports and records regarding such students.

Respectfully,

NICHOLAS MURRAY BUTLER,

*Dean.*

June 30, 1892.

## LIBRARY.

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### REPORT OF THE LIBRARIAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1892.

*To the President of Columbia College  
in the City of New York :*

SIR :

I have the honor to make the following report for the library for the year ending June 30, 1892.

#### GROWTH OF THE LIBRARY.

The additions for the year were 15,408 bound volumes, of which 10,012 came by purchase and exchange, and 5,396 by gift. Gifts of books and pamphlets have been received during the year from 440 different persons or institutions. Gifts of reports and proceedings of official bodies, charitable organizations, municipalities, and the like, depend largely on the amount of time and labor devoted to correspondence with these institutions.

The number of pamphlets given was 1,520. The number of volumes given was 5,465.

The number of bound volumes contained in the library, exclusive of duplicates, is approximately 140,000.

The yearly additions for the past six years, as entered in the accession books, were as follows :

1887.....	7,711	1890.....	14,125
1888.....	5,087	1891.....	16,440
1889.....	8,502	1892.....	15,408



The additions for the three years 1887, 1888, and 1889 amount to 21,300 volumes, those for the three following years to 46,083, a number only a little less than the number of the entire collection of the college in all the departments when the present library building was first occupied in 1883.

No account is here made of duplicates, or of the libraries deposited here not the property of the college.

The growth of the library is thus a gratifying one in point of numbers, while with regard to the character and value of the additions the same policy prevails from year to year. Many important series and sets of books, periodicals, transactions of societies, collections of historical sources, and similar material are included in the purchases of the year.

The increasing wealth of the library in these monumental works is a source of just pride to all patrons of the library. Together with the additions of these invaluable materials for higher university work, there has gone on quietly in many departments of the library the addition, volume by volume, of the older and perhaps less important treatises and monographs which, taken individually, seem to some of subordinate value, but which, gathered in tolerable completeness, arranged, and catalogued, form collections of indisputable importance. The system of constant regular attention to sales of second-hand books by auction or from dealers, which has been carefully followed here for years, gives a library in the course of time the richest collections for the least expenditure of money.

The results of these acquisitions, continued at very moderate expense for years in one field, enabled the librarian, and the officers of instruction in that department, to see, without too great regret, the failure of negotiations for the purchase for the library of one of the largest private collections on the subject in existence, which fell through chiefly because so considerable a part of the collection was already here, that it was felt the large sum involved could be more wisely expended elsewhere. In many topics the results of these acquisitions are such as to be a credit to the library.

The policy of purchase which I advocate and am in large

degree able to realize, is to buy from agents on the best terms, but at regular prices, the new and standard works thought necessary for the library; also to buy any older works or lines of books actually needed for immediate use wherever they can be gotten at prices not extravagant, while the vastly larger body of individual books or classes of books wanted to fill general needs or thought desirable in the various departments for future use, planned or hoped for, are to be bought only when offered for sale, not sought at great expense.

This library has also now reached the stage of development where purchases of entire collections or libraries, however inviting they may appear, will in the fewest cases be wise.

It is confidently hoped that the purchase of the Struve astronomical library, which has by order of the trustees been contracted for, will prove an exception to this proposition. This purchase, which will not be received until after the close of the present fiscal year, comes properly in the report for the ensuing year.

#### LIBRARY BUILDING.

To meet the needs of the library for storing books there was put early in the year in the basement of the building, in two small rooms, shelving to hold about eighteen thousand volumes. This has been filled, and another large room on the same level has been devoted to library purposes, and the shelving in it is nearly ready for use. Care has been taken to make the shelving in this room in such a manner that it can be removed and used successfully in the future library to be erected on the new site of the college. This room will hold about sixty thousand octavo volumes. It is hoped that this space may suffice to hold the books of the library while it remains on the present site. It is unlikely that any further improvements in the present building, however desirable, will be thought wise, and the hope of ample accommodation in a new library must console for any unsatisfied needs or wishes here.

There has been hung in the library a portrait by Daniel Huntington of the late Charles M. Da Costa, painted by order of the trustees.

## USE OF THE LIBRARY.

The total number of books loaned from the library for home use was 26,632. The library was asked to extend the time on 12,141 of these loans.

The records of loans from the library are the only statistics of the use of the library it is found practicable to make. These were as follows, for the six past years ending June 30th :

1887 .....	13,373	1890 .....	16,004
1888 .....	12,615	1891 .....	22,721
1889 .....	11,325	1892 .....	26,632

Thus the increase noted in the last library report is continued. The use of the library, in the reading-room especially, by the law students was so great that on the petition of a number of them the library was, from February 4th until about June 1st, kept open until 11 P.M., instead of until 10 P.M. While this extension of the hours of opening occasions the library administration no serious inconvenience save the added cost of service and lighting, I cannot refrain from giving expression to my serious doubts of the wisdom of this step. Ten o'clock is in my opinion late enough for serious study to continue. The young man who has worked faithfully until that hour will do better to close his day's work then, and after proper recreation and rest resume his study the next morning. The formation of well ordered habits of study on the part of students will hardly be fostered by the protracted hours of library opening.

## CATALOGUE DEPARTMENT.

The work in the catalogue department, which last year was described as taking on larger proportions, has during the year increased materially in what it has accomplished.

The number of new cards written or finished and placed in the catalogue was 39,903. Over 21,000 old cards have received corrections and additions during the year. The number of new cards made during the past five years was as follows :

1887-1888.....	11,533	1889-1890.....	19,254
1888-1889.....	20,464	1890-1891.....	28,647

The character of the catalogue work is constantly improving, and the mechanical execution of the cards is kept at a high standard. Considerable indexing of the contents of the transactions of learned societies has been accomplished during the year. What might be done in this direction is practically limitless, and only a careful selection of entries is desirable.

#### GIFTS.

No especially important gifts have been received during the year. The contribution of numerous small gifts aggregate a large number of volumes. Worthy of particular mention are the names of Mr. Alexander J. Cotheal, who gave a large part of his private library; of Messrs. H. E. and C. E. Pellew, who gave nearly all the library of the late George Pellew; and of Mrs. W. G. Peck and family, who kindly placed at the disposal of the college a large portion of the private library of the late Professor W. G. Peck. The bequest of the late President Barnard to the college, on the death of Mrs. Barnard early in the year, came into the treasury, and will yield an income devoted to the purchase of books of about \$3,200 per annum.

Mr. Samuel P. Avery has continued during the year a most generous patron and friend of the library, remembering it constantly by valuable additions to the Avery collection.

Through the efforts of Dr. N. L. Britton, a sum of money has been procured for botanical books for the library,

of which \$200 has been received by the treasurer and expended.

#### AVERY ARCHITECTURAL LIBRARY.

The Avery collection now numbers about 3,500 volumes, and at least a thousand volumes are now on the way here. The purchases already made and the orders now out largely exceed the amount, \$15,000, originally put at the disposal of the committee, but the additional orders were authorized and directed by Mr. Avery. The collection as at present existing and as ordered is one of very great value. Its fulness, completeness, and richness in many fields already far exceed what the committee originally had dared to hope for, and if its development on present lines and at present rates can be continued, it will soon be unequalled.

All the books thus far received have been carefully catalogued, and it is hoped to print a catalogue during the coming year. If it shall be the wish of the generous giver of the library to render it practically complete in its most interesting field, this can be done at a far smaller outlay per volume than has thus far been the case, as we already have the greater part of the very large and expensive works.

During the year the tablet mentioned in the last report, the gift of the Architectural League of New York, has been put in place, and there has been put in the Avery room a stained-glass window, whose central feature is a conventional figure representing architecture, designed and presented by the late Daniel Cottier, of this city, in memory of Henry Ogden Avery.

On June 4th the library was closed for general purposes, and an exhibition, chiefly of the Avery Architectural library, was held. All the tables in the reading-room were covered with a selection of bound volumes, while on the walls several hundred plates and photographs were displayed.

The exhibition, which lasted from 1.30 to 10 P.M., was largely attended by hundreds of interested persons.

## EXPENDITURES.

The direct expenses of the library paid here were as follows:

<b>Salaries</b> .....	<b>\$14,500.00</b>
<b>Supplies and Incidentals</b> .....	<b>1,200.00</b>
<b>Books and Binding</b> .....	<b>17,768.74</b>

The Book Account was as follows:

Bal. from last year..\$	879.06	Expended.....	\$17,768.74
Appropriation.....	17,000.00	Balance carried over	
Fines.....	241.10	to next year's ac-	
Received for sales...	154.42	count to meet out-	
Unexpended balance		standing orders..	964.90
from Dr. Drisler..	59.06		
Gifts.....	400.00		
	<u>\$18,733.64</u>		<u>\$18,733.64</u>

There was expended for binding and repairing of books in the general library \$3,043.73.

This does not include binding done abroad on books bought, nor binding done in the Avery Library.

The number of books newly bound was 2,566, including 138 volumes bound for the library of the New York Academy of Science.

1,040 volumes were rebound or repaired.

Class and book numbers were gilded on 22,623 volumes at a cost of \$663.17.

Appendices show the current use of the library, and give the names of persons and institutions who have during the year given books or pamphlets to the library.

Respectfully,

GEO. H. BAKER,

*Librarian.*

June 30, 1892.

## APPENDIX A.

## STATISTICS OF THE USE OF THE LIBRARY, JULY 1, 1891, TO JUNE 30, 1892.

1891-1892.	Days Open.	Readers.	New Loans.	Renewals.	Total Loans.	Daily Average.	Largest Loaned.	Smallest Loaned.	Fines.	Readers' Tickets Issued.
July	26	2,479	904	429	1,333	51.2	65	15	\$9.20	5
August	26	2,116	993	297	1,290	49.6	63	15	10.80	5
September	26	3,157	1,114	648	1,762	67.7	60	27	23.25	7
October	27	6,162	2,359	532	2,891	107.0	124	25	20.55	23
November	24	6,585	2,658	644	3,302	137.7	174	80	15.85	11
December	24	5,751	2,603	2,197	4,800	200.0	140	75	16.50	8
January	26	6,143	2,735	618	3,453	129.0	140	20	27.00	13
February	25	7,894	2,812	591	3,403	136.1	145	55	32.70	6
March	27	9,178	3,063	720	3,783	140.1	154	82	25.45	20
April	25	8,763	2,532	2,727	5,269	210.7	165	64	20.25	11
May	26	7,549	2,816	719	3,535	135.9	174	45	24.65	6
June	25	3,436	2,043	2,009	4,052	162.0	140	42	14.90	7
Totals	307	69,213	26,632	12,141	38,773	126.2			\$241.10	122

## APPENDIX B.

## COLUMBIA COLLEGE LIBRARY.

RECORD OF GIFTS, 1891-92.

	Vols.	Pam.		Vols.	Pam.
Abbott, B. R. . . . .	1		Boston Park Commis. . .	6	
Aberdeen Univ. . . . .	1	2	“ Pub Lib. . . . .	2	
Ala. Geol. Survey . . . .	1		“ “ Sch. Com. . . . .		1
“ R. R. Com. . . . .		2	“ Savings Banks Com. .	2	
“ Univ. . . . .		2	Botany Lecture Course .	52	
Albany Diocese . . . . .		2	Boutell, L. H. . . . .	1	
Allegheny College . . . .		1	Bowdoin Coll. . . . .		1
Allen, Dr. T. F. . . . .	62		Boyesen, H. H. . . . .	1	
Am. Acad. of Arts . . . .	1		Bradford City Club . . .		1
“ Assoc. Adv. Sci. . . .	1		Bradstreets . . . . .	1	
“ “ Mech. Eng. . . . .	1		Britton, N. L. . . . .	120	16
“ Bankers' Assoc. . . . .	3	2	Brookline Pub. Lib. . . .		1
“ Bar Assoc. . . . .	1		Brooklyn Compt. . . . .	1	
“ Colonization Soc. . . .	6	24	“ Library . . . . .		2
“ Iron & Steel Assoc. . .	1		“ Pub. Inst. . . . .	4	
“ Metrological Soc. . . .	25	13	Brown Univ. . . . .		1
“ Philosophical Soc. . . .	2		Buffalo Charity Soc. . . .		11
Amherst Coll. . . . .		2	“ Hist. Soc. . . . .		1
Andover Theol. Sem. . . .		6	“ Library . . . . .		1
Appalachia . . . . .	1		Bullard, E. F. . . . .		1
Archæological Inst. . . . .		1	Bullmann, M. C., . . . .	1	
Arkansas Auditor . . . . .		1	Bureau of Am. Republics		5
“ Geol. Survey . . . . .	3		Burlington City Clerk . .	1	2
“ Pub. Instr. . . . .	2	4	Butler, N. M. . . . .	84	97
“ Sec. of State . . . . .	3	1	California Comptroller . .	2	1
Atchison City Clerk . . . .		3	“ Equalization Bd. . . .	1	
Australasian Assoc. Adv.			“ Horticultural		
Sci. . . . .	1		Soc. . . . .	1	
Avery, S. P. . . . .	2,202		“ Mining Bur. . . . .		2
Baker, G. H. . . . .	2		“ Pub. Instr. . . . .	6	
“ Univ. . . . .		1	“ R. R. Com. . . . .	4	4
“ Voorhis, & Co. . . . .	6		“ Surveyor Gen. . . . .	6	
“ W. G. . . . .	31		“ University . . . . .		3
Baltimore Coll. Dental Sur-			Cambridge, Mass., City		
gery . . . . .		2	Clerk . . . . .	13	
“ Pub. Sch. Com. . . . .		1	Camden, N. J., City Clerk	2	9
Bamburgh, W. C. . . . .	1		Canada Agric. Dept. . . .	1	
Bangor Public Lib. . . . .		1	“ Finance “ . . . . .		1
Bates, J. H. . . . .	1		“ Geol. Survey . . . . .	1	1
Beverly City Clerk . . . .		29	Canadian Inst. . . . .	1	2
Bolton, Dr. H. C. . . . .		3	Canisius College . . . . .		1
Boston Assoc. Charities . .		12	Capps, E. . . . .	1	
“ Auditor. . . . .	5		Carleton College . . . . .		1
“ Museum of Fine			Carthage College . . . . .		1
Arts . . . . .		1	Central Falls R. I. . . . .		1
“ Overseers of the			Century Assoc. . . . .	1	1
Poor . . . . .	2	2	Chancellor, C. F. . . . .	1	6



	Vols.	Pam.		Vols.	Pam.
Chester, Pa., City Clerk . . .		1	Dows, Rev. H. A. . . .	4	
Chicago Law Inst. . . .	1	2	Drisler, H. . . . .	15	17
" Pub. Library . . .		16	Dutton, C. . . . .	1	
Chili Minister . . . . .	4		Earlham College . . . .		1
Chippewa Falls City Clerk . .		1	East St. Louis City Clerk .	1	
Cincinnati Pub. Lib. . . .		2	Elliott, A. M. . . . .		1
Clark, E. P. . . . .	1		English, G. L. . . . .		1
Clay, C. M. . . . .		4	Erie City Clerk . . . . .		2
Colby, F. M. . . . .	3		Essex Inst. . . . .	1	
Cole, T. L. . . . .		1	Ewing College . . . . .		1
Colgate Univ. . . . .		1	Eyssenhardt . . . . .		1
College of N. J. . . . .		10	Fall River City Clerk . .	9	
Colorado College . . . . .		4	Fernald . . . . .		1
" Labor Bur. . . . .		1	Ferree, Barr . . . . .	1	2
" Pub. Instr. . . . .	2		Fisk, H. . . . .	4	
Columbian Univ. . . . .		1	Fitchburg City Clerk . .	1	
Columbus, Ga., City Clerk . .		18	Fletcher Free Lib. . . .		1
" O., Auditor . . . . .		1	Florida Treasurer . . . .		2
Comstock, W. T. . . . .	14		Foote, A. R. . . . .		2
Conn. Agric. Bd. . . . .	12		Fort Wayne City Clerk . .		1
" Comptroller . . . . .		2	Fort Worth, Tex., City		
" Educ. Bd. . . . .	8	2	Clerk . . . . .	1	1
" Pub. Instr. Supt. . . . .	4		Foster, J. M. . . . .	1	
" R. R. Com. . . . .	1	1	Framingham City Clerk . .	4	
" Sec. of State . . . . .	5		Franklin & Marshall Coll.		1
Cook, A. S. . . . .		1	Frazer, P. . . . .		1
" T. & Son . . . . .	1		Fresno, Cal., City Clerk .		1
Cooper Union . . . . .		1	Gale Coll. . . . .		1
Cordoba Acad. Sci. . . . .	2		Geneve Univ. de . . . . .		1
Cornell Agric. Ex. Station . .	1	4	Georgetown Coll. Obs. . .	1	2
Cotheal, A. J. . . . .	752		Univ. . . . .		1
Council Bluffs City Clerk . .	2		Georgia Agric. Dept. . . .	6	5
Crane, C. S. . . . .	1	8	Gittermann, Dr. J. M. . .	62	35
Crisp, F. A. . . . .	1		Glasgow Baillies' Inst. . .		1
Crocker, F. B. . . . .	1		Gloversville City Clerk . .		3
Croes, J. J. R. . . . .	1		Golden, Col., Sc. of Mines .		2
Cumberland Univ. . . . .		1	Gordon, H. L. . . . .	1	
Curry, Dr. J. L. M. . . . .		1	Gottheil, R. . . . .	1	1
Cust, Dr. R. M. . . . .	1		Grand Rapids City Clerk .	1	6
Cutting, W. B. . . . .	1		Grand River Coll. . . . .		1
Dakota Treasurer . . . . .		1	Green, A. H. . . . .	1	
Dallas, Tex., City Clerk . .	3		" S. A. . . . .	3	2
Dalhousie Coll. . . . .	1		" S. S. . . . .		3
Danbury City Clerk . . . .	1		Haferkorn, H. E. . . . .	1	
Dante Society . . . . .		1	Hall, Jos. . . . .		1
Dartmouth Coll. . . . .		1	Halsey, E. D. . . . .	1	2
Davenport City Clerk . . . .		1	Hamilton Coll. . . . .		1
Davis, J. W. . . . .	1		Hannibal, Mo., Auditor . .	1	11
Delta Upsilon Quar. . . . .	2		Harrisburg City Clerk . .	1	
Denver Pub. Lib. . . . .		5	Hartford Lib. Assoc. . . .		2
" Univ. . . . .		5	" Theol. Sem. . . . .		2
De Peyster, J. Watts . . . .	9	2	Hartley, J. S. . . . .	1	
Des Moines City Clerk . . . .	1		Harvard Coll. . . . .	1	3
Detroit College . . . . .		1	" " Obs. . . . .		4
Dodge, D. K. . . . .	1		Henning Rapid Transit Co.		1

	Vols.	Pam.		Vols.	Pam.
Hill, N. P. . . . .	1		Knoxville Compt. . . . .	1	
Hillsdale Coll. . . . .		1	Koopman, H. I. . . . .		1
Hobart Coll. . . . .		2	Kunhard, W. B. . . . .	12	
Hoboken City Clerk . . . . .		1	Lane, W. C. . . . .		1
Hoepli, U. . . . .	1		Lawrence City Clerk . . . . .		1
Holland Soc. . . . .	1		Leale, C. A. . . . .	1	
Hollick, A. . . . .	1		Leavenworth Pub. Co. . . . .	3	4
Houston, Tex., Sch. Com. . . . .		1	Lebanon Valley Coll. . . . .		1
Howard Univ. . . . .		1	Leeds, Eng. Pub. Lib. . . . .		1
Howe, Balch, & Co. . . . .	1		Lehigh Univ. . . . .		1
Huguenot Soc. of Am. . . . .	1	1	Leland Stanford, Jr., Univ. . . . .		6
Huntington City Clerk . . . . .		1	Lincoln, R. I. . . . .	1	
Illman, R. I. B. . . . .	1		Linnæan Soc. . . . .		1
Illinois Auditor . . . . .	1		Little Rock City Clerk . . . . .	1	
" College . . . . .		1	Liverpool Free Pub. Lib. . . . .		1
" Geol. Survey . . . . .	3		London Univ. . . . .	1	2
" Labor Bur. . . . .	3		Los Angeles Pub. Lib. . . . .		2
" Univ. . . . .		1	Louisiana Auditor . . . . .		5
" Wesleyan Univ. . . . .		1	Louvain Univ. . . . .	7	
India Great Trig. Survey . . . . .	1		MacDonald, A. . . . .		2
Indian Rights Assoc. . . . .		1	McKeesport City Clerk . . . . .		1
Indiana Agric. Dept. . . . .	12		Madison City Clerk . . . . .	1	
" Statistics . . . . .	1		Mahonoy City Clerk . . . . .	1	
" Univ. . . . .		1	Maine Agric. Dept. . . . .	8	
Institution of Civ. Eng. . . . .	6		" Health Dept. . . . .	5	
Iowa Diocese . . . . .		1	" Labor Bureau . . . . .	1	
" Horticult. Soc. . . . .	18		" R. R. Com. . . . .	1	
" Labor Bur. . . . .	1		Manhattan Coll. . . . .		1
" R. R. Com. . . . .	1		Mansfield, O. City Clerk . . . . .		4
" Sec. of State . . . . .	2	1	Marietta Coll. . . . .		1
" State Agric. Soc. . . . .	15		Marinette, Wis., City Clerk . . . . .		1
" Supt. Pub. Inst. . . . .	2		Marlborough . . . . .		1
Iron Age . . . . .	2		Maryland Comptroller . . . . .	2	4
Jackson, O. . . . .	1		" Indust. Bur. . . . .		1
Jacksonville Mayor . . . . .		2	" Ins. Com. . . . .	5	3
Janesville City Clerk . . . . .		1	" Tax Com. . . . .		2
Jersey City Free Pub. Lib. . . . .		6	Mass. Agric. Ex. Sta. . . . .	3	
Johns Hopkins Univ. . . . .	12	9	" Civil Service Com. . . . .		5
Joliet City Clerk . . . . .	1		" Health Bd. . . . .	1	
Jordan, Mrs. M. C. . . . .		15	" Inst. of Tech. . . . .		8
Journal of Am. Folk-Lore . . . . .	1		" Insurance Dept. . . . .	5	3
Kansas Auditor . . . . .	1		" Labor Bur. . . . .	2	
" Coal Mines Inspect. . . . .		1	" Legislature . . . . .	31	
" Historical Soc. . . . .	1	4	" Lunacy Bd. . . . .	8	
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